
BOOK the Eighth.

Of G U M S.

P R E F A C E.

WE distinguish Gums into two Sorts; namely, such as are aqueous, and such as are resinous. We understand by the aqueous Gums those that will dissolve in Water, Wine, or other the like Liquids; as Manna, Gum Gutta, or Gamboge; and by the resinous, those that will not dissolve but in Oil, as Gum Elemi, Tacamahaca, and the like, as you will find by the subsequent Discourse. There are some who will add to these two Sorts a third, which they call the Irregular, and which they pretend will not readily dissolve either in Water or Oil, as Myrrh and Benjamin. If Seeds, Roots, Woods, Barks, Flowers, Leaves, and Fruits, are so difficult to distinguish one from the other, Gums are not the less so; and as the Knowledge of them is difficult, there are Substitutes of one Kind or other sold at Times, either thro' Deceit or Ignorance, for almost every Gum in Use.

I. Of the Manna with which God fed the Israelites in the Desert.

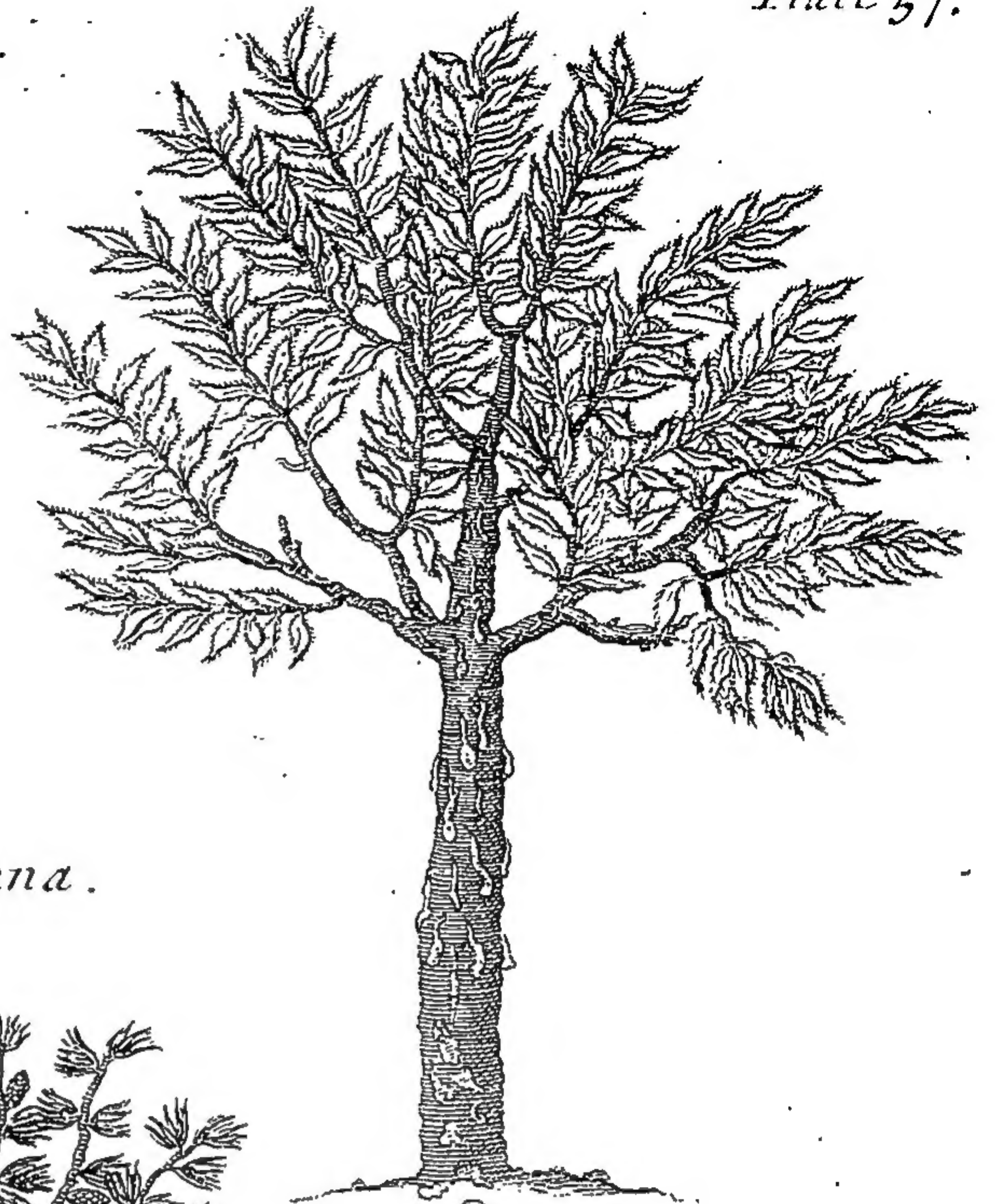
WHEN the Israelites had pass'd the Red Sea in a miraculous Manner, and were deliver'd from their Enemies, the Famine pursued them into the Desert, and they murmur'd against Moses: But that faithful Minister of God made his Supplication to Heaven, and God delay'd not to give them Food; for there fell a great Quantity of Quails in their Camp, and the next Morning it rained Manna upon the Earth, which was continued for forty Years, during the Time the Hebrews remain'd in the Desert. The People were presently surprized when they beheld the Earth all cover'd with a Kind of Grain they were Strangers to: And the Scripture informs us, that not knowing what it was, they cried out with Admiration, *Man hu! Quod est hoc!* What is this! But Moses told them it was the Bread of God that was sent from Heaven, and appointed them to come every Morning before Sun-rise, to gather this divine Food; because when the Day was ad-

vanc'd, it was no Time to gather the Manna, which melted away after the Rising of the Sun.

The Jewish, as well as the Christian Interpreters, do not agree about a great many Things relating to this Manna: They are divided about the Etymology of the Word Manna; some will have it that it comes from the Hebrew, *Man hu*, which the Jews pronounc'd when they saw the Earth cover'd with little white Grain or Seeds, which fell during the Night; nevertheless several others, of which Number Buxtorf is one, say, that the Word Manna signifies Food prepar'd, as if he should say, the Food which God had prepar'd for his People. Neither are they at all better agreed about the Nature of this Manna; several maintain that it was the same with the purging Manna now used in Physick; that is to say, a Liquor which falls in the Nature of Dew, and which is congeal'd into little Grains, like those of Coriander. *Palesius*, Physician to the Emperor Charles the Fifth, is of this Opinion. *Cornelius à Lapide*, a very learned Jesuit, says, in his Commentary upon *Exodus*, that he had seen in Poland little Seeds like Millet, something long and reddish, which fell, during the serene Nights, in June and July, and that they were eaten when boil'd,

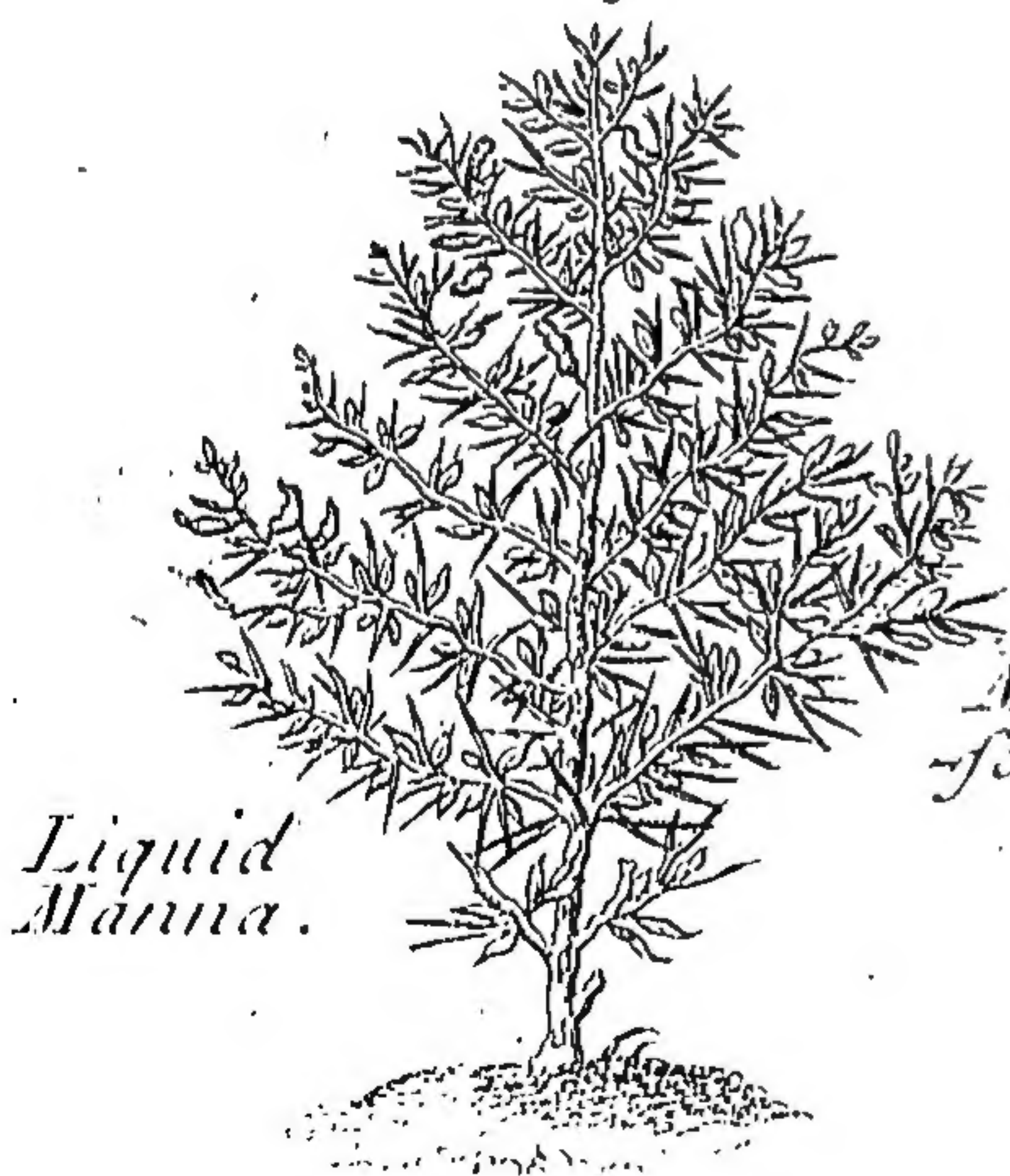


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Calabrian Manna.

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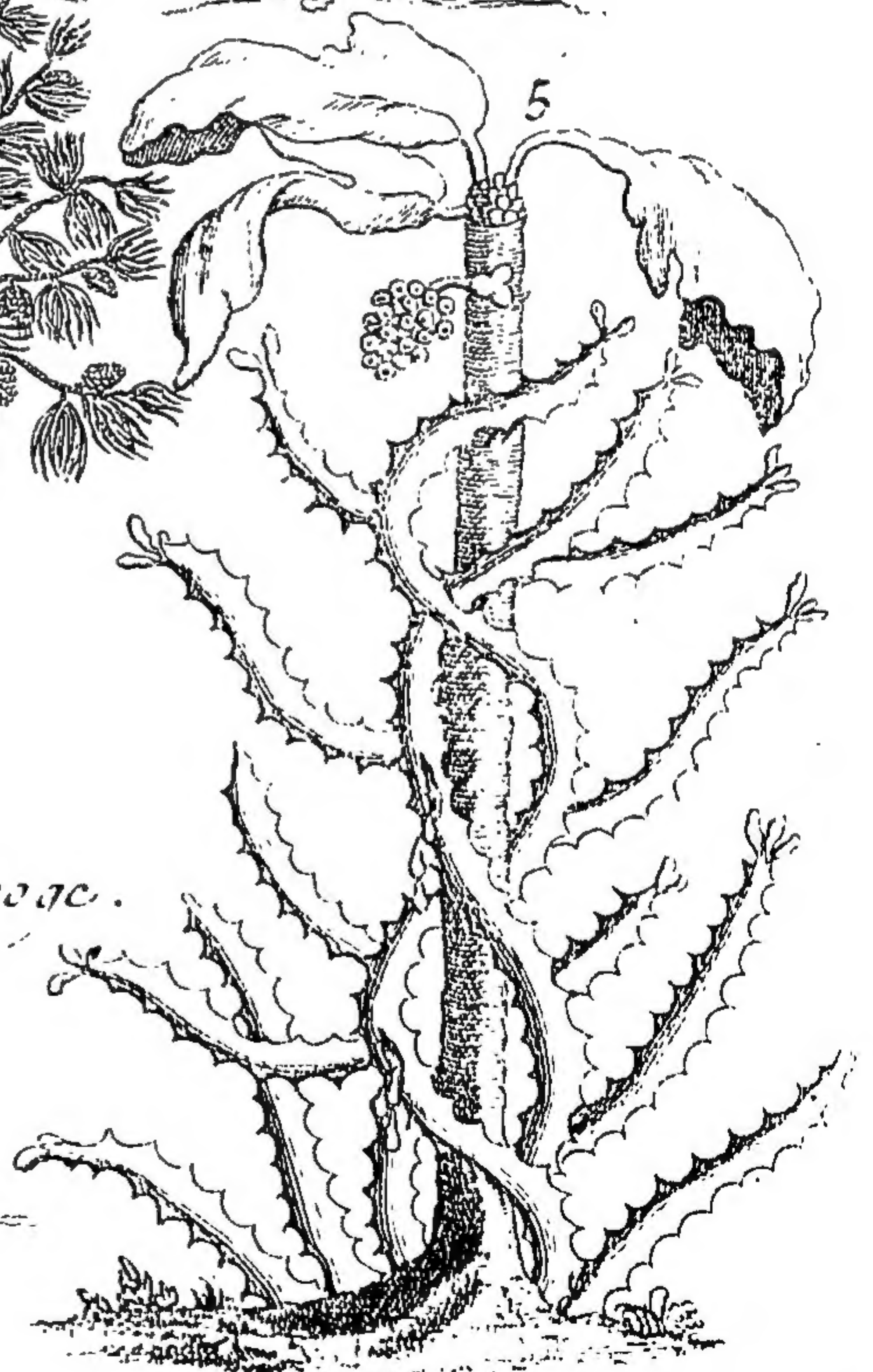
Liquid Manna.

4



*Manna of Brian-
son.*

5



Gamboge.

boiled, having the same Taste as the Panick. And I have been confirm'd in this by a Friend of mine, who was a long Time in *Poland*, especially on the Side of *Silesia*, where this Dew falls plentifully. And I have also seen on the Heights of *Dauphiny*, at the Foot of the Mountain of *Geneva*, about Four o'Clock in the Morning, a large Quantity of this *Manna*, which I have taken at first Sight for Hail, but after having tasted it, I found, by its sweet sugary Taste, that it was a Dew like that spoke of in the Holy Scriptures; for as soon as the Sun was up, it dissolv'd.

Those who hold that the *Manna* with which God fed the *Jews* in the Desert, was not the same with that used in Physick, say, that that which purges must weaken and cannot nourish; but *Vossius* answers this Difficulty, and says, that this *Manna* differ'd not at all in its Nature, but as to Accidents, from that used in Physick; and this Difference arose from the Preparation which the Angels made in sweetning and cleansing this Dew from its Aqueous Parts that the common *Manna* is loaded with, in order to make it fit for Bread, &c. as that which falls in *Poland* in the Months of *June* and *July* is. Beside which, the constant Use of a Medicine will hinder it from having its common Effect. We see Men daily who make their Food out of strong Poisons by a continued Custom and Habit; and Wine shall be highly serviceable to Persons when sick, who do not drink it at other Times; shall be hurtful to Persons in Illness who make a constant Use of it when well. *Valesius* does not doubt in the least but that the *Manna* in the Desert did at first purge the *Hebrews*, who were replete with gross Humours, which they collected by the Use of Garlick, Leeks and Onions, of which they fed during their Abode in *Egypt*; and that after they had been duly purged, the *Manna* became nutritive, especially after having been prepar'd or purified by the Angels; for it is expressly said in *Psalms* lxxviii. ver. 23, 24, and 25. *God commanded the Clouds above, and opened the Doors of Heaven; he rained down Manna also upon them for to eat, and gave them Food from Heaven: So Man did eat Angels Food.* And this Explication appears very agreeable to the *Hebrew* Word *Manna*, which signifies Nourishment, or Food prepar'd; as may be inferr'd from the 31st Verse of the 11th Chapter of *Exodus*, where it is said, *And the Taste of Manna was like Wafers made with Honey.*

2. Of Manna.

Pomet. **T**HAT which we call and sell now by the Name of *Manna*, is a white crystalline Liquor that flows with-

out Incision, and with Incision from both the wild and domestick Ashes, which the *Italians* call *Fraxini* and *Orni*, that grow plentifully in *Calabria* and *Sicily*, but chiefly at *Galliopoli*, about Mount Saint *Angelo*, and *Tolse*, from whence almost all the *Manna* we now sell is brought.

We sell several Kinds by the Name of *Calabrian Manna*. The first and best Sort is the *Manna* of Mount St. *Angelo*, but that is fatter than the other Kinds, and therefore very little demanded by People who do not understand it: The second is the *Sicilian Manna*, which is usually white, dry, and teary. The third Sort of *Manna* is that of *Tolse*; this is the worst of the three, and is that which is improperly call'd *Briançon Manna*, which is another Kind, as will be seen hereafter; this is dry, white, and very apt to be full of Dirt.

The *Arabians* look'd upon *Manna* to be a Sort of airy Honey, or a Dew that falls from the Heavens: And this was a common receiv'd Opinion for many Ages; but *Angelus Sala*, and *Bartholomæus ab Urbe veteri*, two *Franciscan Friars*, who, in 1545, publish'd Commentaries upon *Mesue*, were the first that I know of, that in their Writings affirm'd *Manna* to be truly the concreted Juice of the Ash-Tree, as well the common as of the wild, generally call'd *Quickbeam*. *Donatus Antonius ab alto mari*, a Physician and Philosopher of *Naples*, who flourish'd about the Year 1685, has also confirm'd this Opinion by several Observations.

For first, having cover'd Ash-Trees for several Days and Nights together all over close with Sheets, so that no Dew cou'd possibly come at them; yet he has found *Manna* upon these Trees so cover'd, under the Sheets, when at the same Time not the least Sign or Impression of any Dew or Honey was to be seen upon the upper Part of the Sheets. 2dly, All those who make it their Business to gather *Manna*, freely own and confess that it drops out again of the same Places of the Trees, from whence it was before taken, and by Degrees coagulates with the Heat of the Sun. 3dly, In the Trunks of the Ash-Trees, little Bladders, or as it were Blisters, are often observ'd, or rise near the Bark, which are fill'd with a Liquor of a white Colour, and sweet Taste, which afterwards thickening, is turn'd into a very good Sort of *Manna*. 4thly, The very same Liquor flows out of the Bark of the Ash when it is wounded: And it is very observable, that Grasshoppers and other small Insects very often bore through the Bark of this Tree, that they may suck this sweet Tear; and when they have left it, the *Manna* sweats out of the small Wounds that they have made. 5thly, Wild

Ashes

Ashes being cut down by Coopers to make Hoops for Wine Vessels, it often happens that no small Quantity of *Manna* flows out of their Stocks or Boughs, being cloven or split lengthways, and exposed to the Heat of the Sun. 6thly, Such as are employed in the making of Charcoal, confidently assure us, that they have often observ'd *Manna* sweat out of the Ash-Wood, after it has been kindled and thrown in the Fire.

The same Author further takes Notice, that the same Trees yield *Manna* every Year; but not all of them indifferently; upon which Account there are a great many that make it their Business, for the Sake of Gain, to bring up these Trees: Yet there are in these Places Trees of the same Kind, that afford no *Manna*. Moreover the same Author tells us, that the *Manna* runs chiefly out of that Part where the Footstalks of the Leaves are inserted into the Branches; for in these Parts the Vessels being thinner and finer, are the more easily divided; wherefore he does with very good Reason observe, that *Manna* never drops out of the Leaves of this Tree, unless it is at Noon, or about the hottest Time of the Day; because there is a large Degree of Heat requir'd for the fetching of this Juice out of its proper Vessels, and conveying or translating it unto the distant Leaves. In the Kingdom of *Naples* and *Sicily*, *Manna* naturally flows and drops out of the Leaves of the aforesaid Trees in the Form of a clear Liquor, and afterwards thickens and becomes a little hard; but especially in the Month of *June*, when the Weather is very hot and dry; next Day, with a Knife, they scrape and pick it off the Leaves, lest it shou'd be dissolv'd and wash'd away by the falling of Rains, or the Moistness and Dampness of Air; then they carefully put it up in Vessels, well glazed; and after that they expose it to the Heat of the Sun, 'till it will not stick nor cleave any more to the Fingers; otherwise it wou'd melt and lose its Whiteness.

Manna flows spontaneously from the Middle of *June* to the End of *July*, unless Rains happen to fall; after the Month of *July*, the Country People or Peasants make an Incision into the Bark of the Ash-Tree, even to the Wood, from whence the Liquor of *Manna* continues to flow and drop, from Noon-Time to Six o'Clock in the Evening incessantly, which afterwards runs together into thick Lumps or Clots, but of a darkish Colour. This spontaneous *Manna*, by the *Italians* is call'd *Manna Di fronda*, upon Account that it drops from the Leaves of the Ash-Tree, like Sweat in the Dog Days or Heat of Summer. But that Sort of concreted *Manna*, that proceeds from the Bark of those Trees being wounded, is call'd by the *Italians* *Sorsatella* and *Stoifata*, or *Manna*

Dicorpa. This Opinion of *Altomarus* has been defended by *Gropius*, *Labellius Cæsalpinus*, *Gostæus*, *Cornelius Consentinus*, *Boccone*, and others; who have given more Credit to their Eyes than to Authority.

Manna is approv'd of when it is fat and a little clear, of a sweet Taste like Sugar, and biting to the Tongue. Chuse that which is fresh and light, from a white Colour inclining to be a little brown, and when the Clots or Lumps being broken, look as if they were sprinkled with Syrup. That is to be rejected which is dry, and as it were spongy, without any Manner of biting Taste; and that is good for nothing that is nauseous, impure and adulterated.

The *Calabrian Manna* is most esteem'd; but besides that, there is a Sort of it sold in the Shops, call'd the *Larch*, or *Briançon Manna*, because it flows from *Larch Trees* growing nigh *Briançon* in *Dauphiny*, of this we shall speak in the next Chapter, but it is but little used, because it is much inferior to the *Neapolitan Manna*. *Calabrian Manna* purges moderately in the Dose, from one Ounce to two or three; it allays the Acrimony of Humours, and is very useful in bilious Distempers, and others attended with Inflammations, such as *Hæmorrhoides*, *Pleurisy*, and *Peripneumony*. It is seldom prescrib'd dry, or by itself, but very often in Potions, &c. As for Example: Take an Ounce or two of this *Manna* and dissolve it in five or six Ounces of warm Water, Broth, Whey, or the like; to which add an Ounce of Syrup of Succory with Rhubarb, or Roses purgative, or Violets, for a Dose. When Patients are afflicted with vomiting, or a Disposition to it, take of *Calabrian Manna* two or three Ounces, Tartar Emetick eight or ten Grains, dissolve them in a Quart of Whey, and let the Patient drink this by Cupfulls, now and then taking a little warm Broth betwixt.

Monsieur *Charas* and others likewise agree, that the true *Manna* is not found upon all Plants, Trees, Rocks, and Earths promiscuously, as some believe, but only upon the ordinary *Fraxinus*, or Ash-Tree, and upon the *Ornus*, or wild Ash. That it is gather'd from the Ash or wild Ash is evident; for that upon some large Tears, the very Print of the Leaf upon which they grow is to be seen, and oftentimes Ash-Tree Leaves are found mix'd with it.

That which comes from the Body of the Ash, and issues voluntarily and freely, as also from the biggest Branches of the Tree, is the purest and fairest, and comes forth in a chrySTALLINE Liquor, beginning to distil in *June*, forming itself into Tears bigger or lesser, as the Part of the Tree is more or less full of it; this is gather'd the next Day

Day after it is distill'd forth, for in that Space of Time it hardens by little and little, and becomes white; this, if it shou'd meet with Rain and Wet, will melt and come to nothing. They take the Bark from it with a thin pointed Knife, putting it into glazed Earthen Pots or Pans, then spreading it upon white Paper, they expose it to the Sun, 'till it ceases to stick to the Fingers, lest it shou'd dissolve by Addition of any superfluous Moisture, and lose its Whiteness: This gathering continues about six Weeks.

The next Kind of *Manna* is that which is forced, which is drawn forth when the former *Manna* ceases to flow voluntarily: They wound the Bark of the Trunk to the Wood itself, with sharp Instruments, and so from Noon 'till Evening you will see the *Manna* flow from those Wounds, which is sometimes clotted together at the Bottom of the Tree, like little Sticks of Wax. This they gather the next Day after the wounding, and it is yellower than the former, and therefore not so much esteem'd, being apt to grow brown if kept any Time, yet nothing less purgative.

Thirdly, There is a *Manna* of the Leaf; this flows voluntarily from the Leaf or Leaves of the Ash, like little Drops of Water, and appears in the Nature of a Sweat upon the nervous Part of the Leaf, during the Heat of the Day, and extends itself all over the Leaf; but the Drops are bigger at the Stalk, than at the End or Point of the Leaf, and harden and become white in the Sun as the former, being something larger than Grains of Wheat. In *August* the great Leaves of the Ash will be so loaden with these Drops, as if they were cover'd with Snow: This is as purgative as any of the rest.

Manna is an excellent Purge for Children, and others that are of weak Constitutions, and abound with sharp salt Humours; it is temperate, inclining to Heat, mollifies or softens the Throat and Windpipe, opens Obstructions of the Breast, Lungs, and other Bowels, purges watry Humours, and keeps the Belly soluble; being an excellent Thing for such as are apt to be costive. *Hoffman* says, it ought not to be given crude, but boil'd, not being less flatulent than Cassia, and therefore shou'd not be administer'd without Correctives.

There is a Spirit of *Manna*, made by Distillation in a Retort. *M. Charas's* Spirit of *Manna* is prepar'd thus: Put *Manna* into a Retort, filling it two Parts in three full, distil in Sand; first, with a gentle Fire, then increasing by Degrees; distil to Dryness, cohobate the Liquor, and repeat the Distillation, so will you have a spirituous Water, containing all the best of the *Manna*, which is not only an excellent Sudorifick, but a wonderful Specifick against all Sorts of Agues or

intermitting Fevers, giving it at the Beginning of the Fit; Dose two Drams or more in Carduus Water. *Schroder's* Spirit of *Manna* is thus made: Dissolve *Manna* in *May Dew*, and cohobate 'till it sublimes to the Head of the Alembick, like Snow; so the Mercury of the *Manna* being brought to the fluid Nature of a Spirit, becomes a Solutive for Minerals: But this I dare not affirm for a Truth, never having seen it tried.

3. Of Briançon Manna.

THE *Manna* of *Briançon* is a white dry *Manna*; but as it is of no Use, and little of it is sold, I shall therefore not dwell long upon this Subject. This *Manna* flows from the large Branches of the *Larix* or *Larch-Tree*, for which Reason it is call'd *Manna Laricæa*, and it is met with plentifully in the Hills of *Dauphiny*, especially about *Briançon*, from whence it takes its Name.

Besides the *Briançon Manna*, there are other Sorts; the scarcest and most valuable of which is the *Mastich Manna*, from the *Levant*, or that of *Syria*: This is a *Manna*, which in Colour comes near that of *Calabria*, and is in Grains like *Mastich*, whence it was so call'd; this flows from the *Cædars* of *Lebanon*.

This *Manna* is very scarce in *France*; though I have about three Ounces, which was affirm'd to me to be true, which is of the Colour and Figure already described, of a bitter and unpleasant Taste, which is very different from *Fuchsius's* Account, who says, the Peasants of Mount *Lebanon* eat it. This Variety of Tastes probably proceeds from its Age, or the Change of the Climate: The People of *Mexico* have a Kind of *Manna* which they eat as we do Bread; and there is a Kind of *Manna* which the *Africans* have in constant Use instead of Sugar or Honey.

There is also a *Persian* Kind in large Lumps; but as none of them ever come to us, it wou'd be but unnecessary to write any Thing more about them.

4. Of Liquid Manna.

THE *Liquid Manna*, or *Tereniabin*, is a white *Manna* that is glewy like white Honey; it is met with upon certain Plants, garnish'd with Leaves of a whitish green, and beset with reddish Thorns; the Flowers are also reddish, and are followed by Pods like those of the *Colutea*, or *Bladder Sena*: It grows plentifully in *Persia*, and about *Aleppo* and *Grand Cairo*, whether it is brought in Pots, and sold to the Inhabitants, who use it as we do *Calabrian Manna*.

This

This Liquor is very rare in *France*. In the Year 1683, a Friend of mine, who had been in *Turky*, made me a Present of about four Ounces, which I keep to this Day; and which was, when given me, according to the Description I have made of it; but as Time destroys all Things, the Colour is chang'd to a grey, and it is become a Syrup of a good Consistence, and of a reddish brown; and that which is most remarkable is, that the Taste is sweet, Sugar-like, and pleasant, and that it is not turn'd sharp.

There is met with, besides, in the *Asia major*, upon several Trees like the Oak, a *Liquid Manna*, especially near *Ormus*, whence it is brought into the Towns in Goat-Skins, where they make so considerable a Trade of it as to transport it to *Goa*: This *Manna* is of the same Figure and Colour with the former, but it will not keep so long.

Manna is a white or yellowish concrete Juice, which inclines much to the Nature of Sugar or Honey, melting or dissolving easily in Water, of a sweet Honey-taste, and a faint weak Smell; it flows either with Incision or without, in the Nature of a Gum, from the large Branches and Leaves of the Ash-Tree, both wild and cultivated.

The finest and most pure *Manna* flows without Incision in *June* and *July*, when the Sun is the hottest; it drops in crystalline or fine transparent Tears, almost like Gum Mastich, some larger and some less, according to the Nature of the Soil, and the Trees that it grows upon. In a Day's Time it hardens by the Heat, and grows white, unless it happens to rain that Day, for then it is all spoil'd; they take it from the Place when it is condensed, and dry it in the Sun again, to render it whiter and fitter for Carriage.

The second Sort of *Manna* is taken from the same Trees in *August* and *September*. When the Heat of the Sun begins to decrease, then they make Incisions into the Bark of the Ash-Trees, and there flows a Juice which condenses into *Manna*, as the first Sort; there runs a greater Quantity than the first, but it is yellower and less pure; they remove it from the Tree and dry it in the Sun. In rainy or dripping Years they make very little *Manna* from the Trees; because it liquifies and spoils by the Wet, which is the Reason that some Years the *Manna* is dearer than others.

When *Manna* is kept it loses much of its Beauty, and does not lose a little of its Virtue. Several People believe that the older it is the more purgative it grows, which I cannot at all understand, and therefore advise you not to use the red or brown decay'd and soft *Manna*, which

sometimes you meet with at the Druggists, but take the purest you can meet with. It is a gentle Purger, and proper for the Head, from an Ounce to two Ounces. The Word *Manna* comes from the *Hebrew* Word *Man*, which signifies a Kind of Bread, or something to eat; for it has been receiv'd among the Antients, that the *Manna* was a Dew of the Air, condensed upon certain *Calabrian* Plants, resembling that which God rained down upon the *Israelites* in the Desert for Food.

[*Manna* is the condensed Juice of the *Fraxinus rotundiore folio*. C. B. Pin. 416. *Fraxinus Alepensis*. Herm. Cat. Lugd. Bat. 261. It grows plentifully in *Calabria* and *Italy*.

Beside what has been already mention'd to prove that *Manna* is not a Dew, as had been believ'd for many Ages, the greatest Proof of all that is not so, is, that all Dews melt in the Sun, whereas *Manna* is very well known to dry and harden by its Heat.

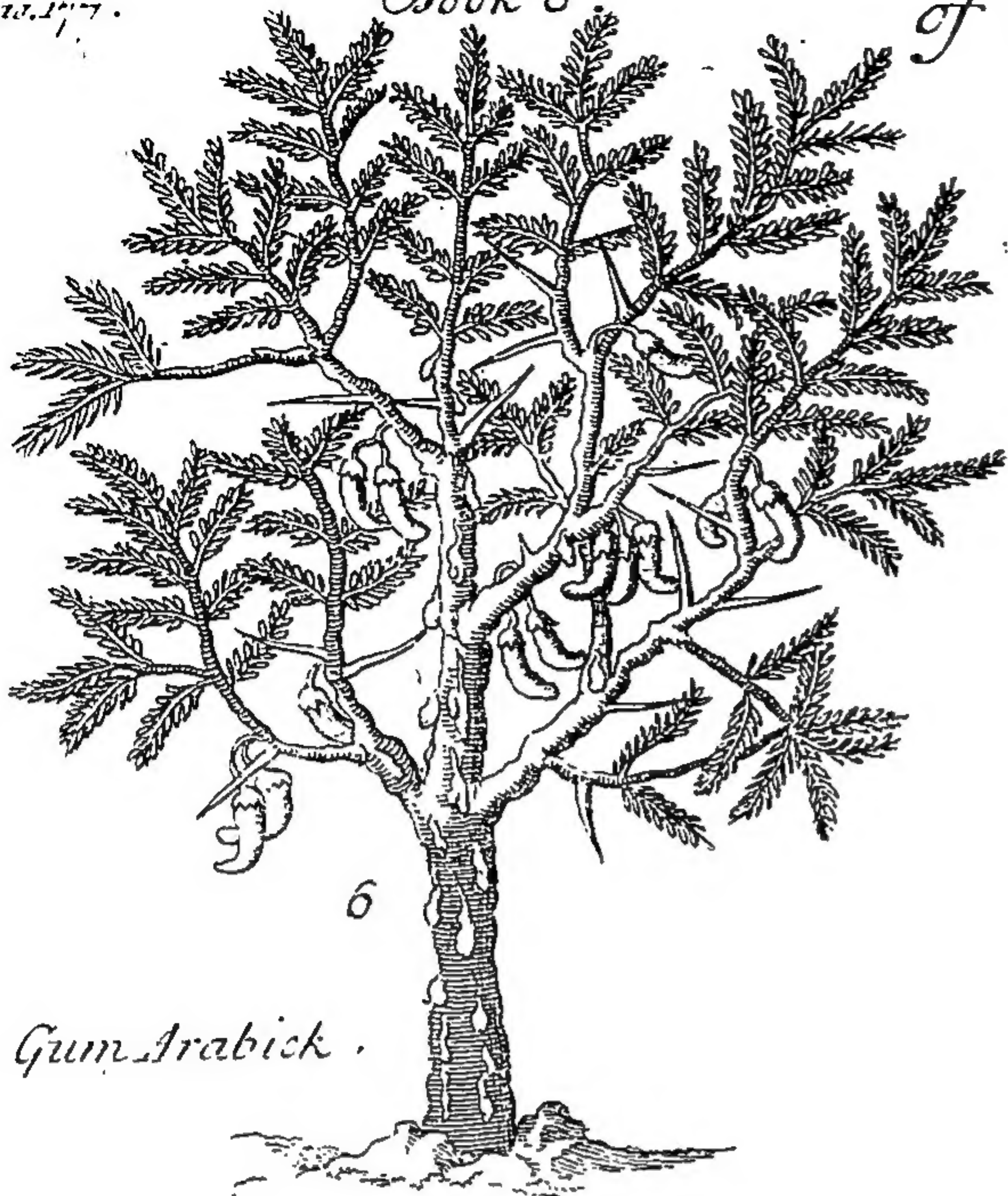
The *Arabians* were the first who discover'd this Medicine; it was unknown to the antient *Greeks* and *Romans*.]

5. Of Gamboge, or Gum Gutta.

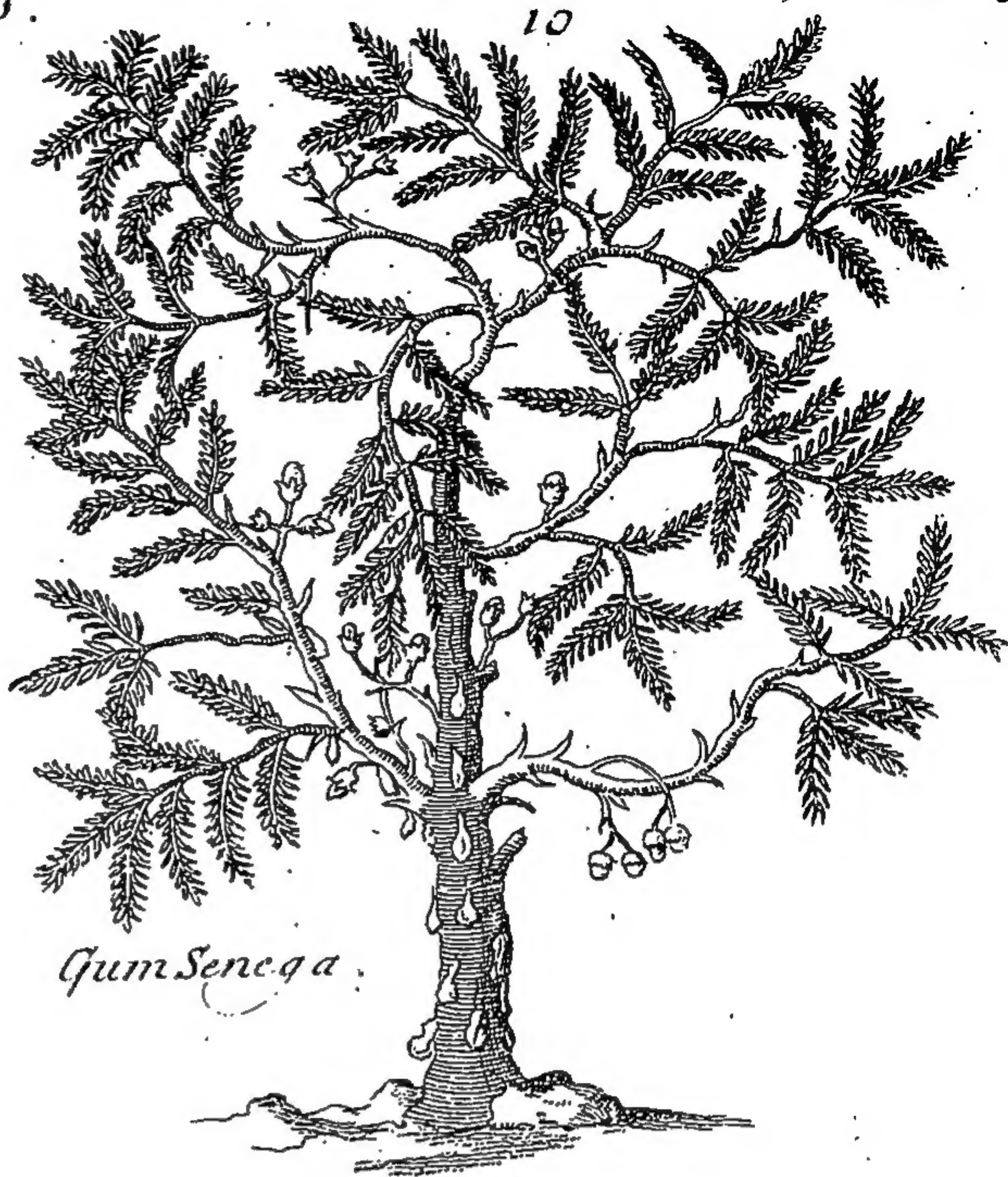
GUM Gutta, or Gutta Gamba, Gamboge, Gamandra, or the *Peruvian Pomet*. Gum, is a Gum that flows from the Trunk of a creeping Plant, that is of a particular Nature; it has neither Leaves, nor Flower nor Fruit; and produces nothing but a Quantity of prickly or thorny Branches, which arise one among another, according to the Figure represented in the Plate: Or else, according to an Account I have receiv'd since the first Publication of this Work, from a *Chinese Tree*, call'd by the *Indians*, *Codelampulli*, or *Cantopuli*, which bears reddish Apples, of a nauseous sour Taste, and without Smell. The Gum is gather'd from the wounded Bark of the Tree, and the *Indians* afterwards dissolve it, and form it into Cakes, as we receive it.

The People of *Siam*, and the adjacent Countries, cut the thick Trunk of the Plant, from whence proceeds an insipidate milky Juice, of a moderate Consistence, which after it is left some Time in the Air, thickens and grows yellow, and then the People roll it up like Paste, and afterwards make it into Cakes, as we have it brought to us. The Peasants about *Odia*, or *On-dia*, the Capital of *Siam*, bring it to Market to sell.

It is most commonly brought into *Europe* from *Peru* and *China*, and other Places of the *East*; being of a pure fine Body like Aloes, but of the Colour of the finest Turmeric, being a good yellow, inclining to an Orange-Colour, without Rubbish



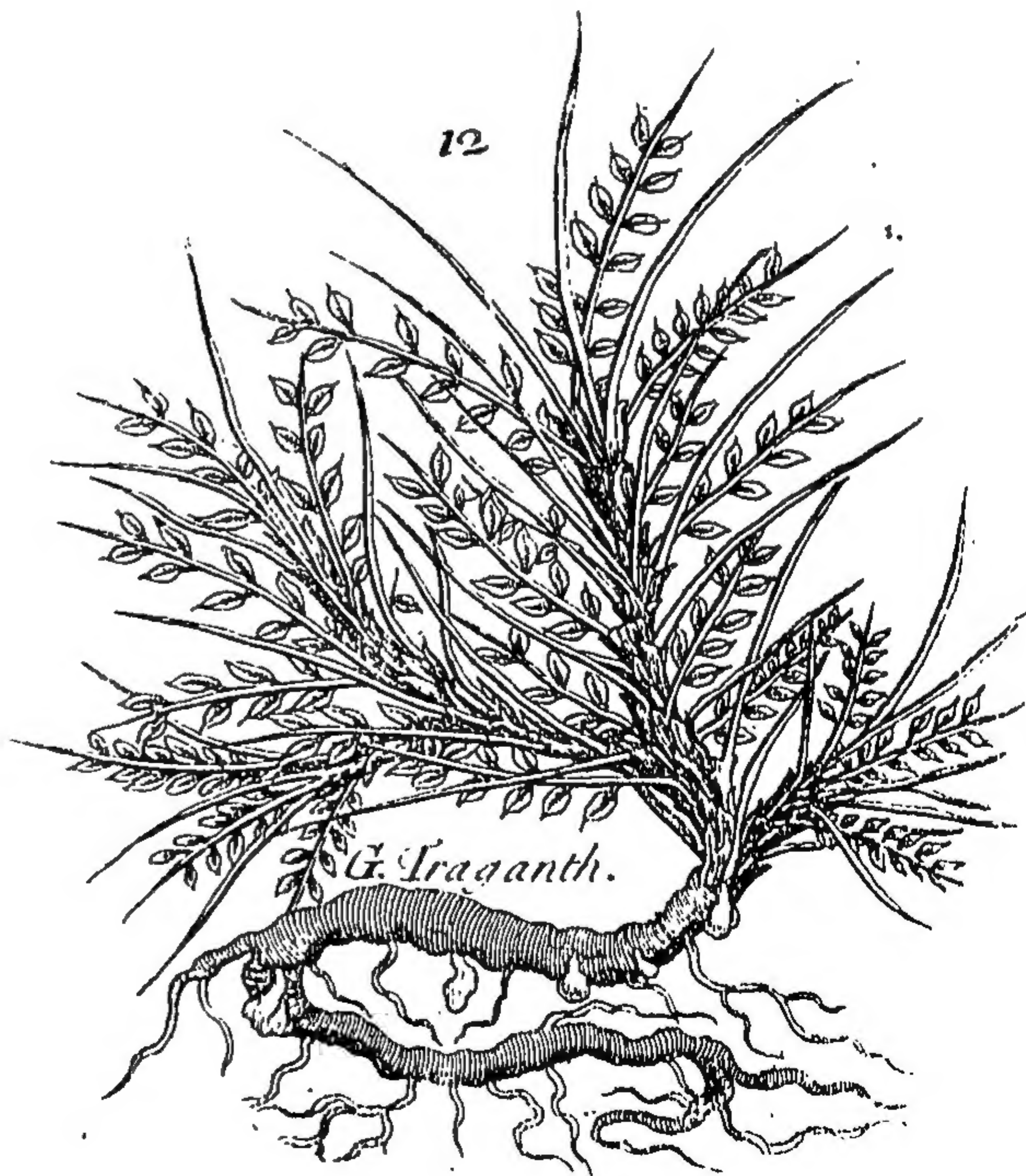
Gum Arabick.



Gum Senega.



Camphire.



G. Traganth.

Rubbish or Filth in it, fine and clean in round Rolls or Cakes, and easily dissolving in Water, being almost all of it Tincture. That it abounds with Sulphur plainly appears, not only by the chymical Resolution of it, whereby a large Quantity of Oil is extracted from it, but also from that bloody Colour, which the Solution acquires, when Lime-Water is pour'd upon it; seeing the very same Colour will be produced in Lime-Water, if you boil common Sulphur or Brimstone along with it; and that *Gum Gutta* is not altogether destitute of a pungent or sharp Salt, manifestly appears by its producing a greenish Colour, upon the blue Paper.

Gamboge ought to be chosen of a bright yellow Colour, a little inclining to red, clean and free from Sand, and which being chew'd, dyes the Spittle of a yellow Colour, and being held to the Flame of a Candle is apt to take Fire. It is preferib'd crude or unprepar'd, from three Grains to six or ten; but it will do better in a Magistery, as follows: Take what Quantity you please of *Gamboge*, dissolve it in Spirit of Wine tartariz'd, then pouring Water upon it, a Powder of a noble yellow Colour will precipitate or fall to the Bottom: This is given from six to ten Grains by itself, or in an Ounce of Pulp of Cassia for a Bolus. Others dissolve it in Vinegar, or Spirit of Sulphur or Vitriol, and so make an Extract. *Gum Gutta* is used in the Catholick Extract of *Sennertus*, in the Cholagogue Extract of *Rolfinchius*, in the Hydropick Pills of *Bontius*, in the Hydragogick Electuary of *M. Charas*. Lastly, the Pills of *Gutta Gamandra* of the *London Dispensatory*, borrow their Names from it.

This was, doubtless, the Gum *Monardus* used against the Gout: It both vomits and purges admirably, carries off watry Humours, and is chiefly used against Dropsies, Cachexia's, Gouts, Scabs and Itch. *Rolfinchius* says, it suffices to give this Gum crude, being finely powder'd, and sprinkled with Spirit or Oil of Anniseed, and so dry'd again. It is an incomparable and beneficial Cathartick for purging serous and watry Humours, and may be given to a Scruple in Substance in strong Constitutions.

There is a yellow staining Colour to wash Maps and Pictures with, made of this *Gamboge*. Put into Water enough to dissolve it, it makes a good Colour for Pen or Pencil; if you add a little Gum Arabick it will be so much the better; being dissolv'd likewise in clear Spring Water, it yields a very beautiful and transparant yellow, especially with the Addition of a little Alum to it, which will both brighten and strengthen the Colour.

Gummi Gutta, Gutta Gamba, Gutta Gamandra, &c. or *Gamboge*, is a resinous Gum brought us from *India* in large Rolls or Cakes that are hard, but brittle and extremely yellow: The Gum flows by Incision from a Sort of thorny creeping Shrub, that runs up a-height, and winds itself about any neighbouring Trees: The Trunk of it is thicker than a Man's Arm; and the *Indians* by cutting of it, get a Juice, which being of the Consistence of a Paste, they mould into what Form they please. Some Authors hold that the Plant which produces this Gum, is a Kind of *Lathyri*, and that the Leaves are as thick as those of the greater Houfleeck. It ought to be chosen dry, hard, brittle, clean, and of a deep Colour: It purges strongly upwards and downwards, and ignorant People should not be too busy with it.

[*Pomet's* later Account of this Gum was right, for the Tree which produces it, is the *Carcapuli*. *Park. Theat. 1635. Carcapuli Acostæ, fructu malo aureo simili. Pluk. Alm. 81. Coddam-Pulli seu Ota Pulli. Hort. Mal. 1. 41.*

There have been various wrong Opinions among Authors about the Origin of this Gum, some thinking it the Juice of a Kind of Spurge, and others of a *Scammony*; others also have thought it fictitious, and colour'd with Turmerick; but it is now certainly known to be the pure and natural Juice of that Tree.

There is indeed another Kind of *Gamboge* gather'd from an *Indian* Plant of the *Esula* Kind, and call'd *Lonam Cambodia*; but the only *Gamboge* now brought to us is the Juice of the Tree here mention'd.

It is remarkable that tho' this Gum is so violent a Medicine, the Fruit of the Tree has no sensible Quality, but may be eaten as an Apple or an Orange.]

6. Of Gum-Arabick.

THE *Gum-Arabick, Theban, Babylo-nish*, or the *Egyptian Acacia Gum*, *Pomet.* which is the Name of the Tree which produces it, is a whitish, transparent Gum, which flows from little Trees that are very prickly, whose Leaves are so small, that it is difficult to count them; and that grow in the happy *Arabia*, from whence it is call'd the *Arabian Gum*. This is brought to *France* by the Way of *Marseilles*: But since the *Gum Senega* has been brought us, the true *Gum Arabick* is become so scarce at *Paris*, that one can hardly meet with any.

Chuse such as is white, clear, transparent, and the dryest and largest Drops that can be got, especially for the *Theriaca*. This Gum is used

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with good Success for several Infirmities of the Lungs, and to soften the Sharpness of Coughs; Gum Senega is often substituted for it, and several People make it the Basis of what they call the Liquorice Juice of *Blis*. It is of the *Moors* that we buy it, who gather it in the Desarts of *Lybia*, where it runs from the Trees that produce it, as our Cherry and Plumb Tree Gums do from them.

Gummi, Arabicum, Thebaicum, Ballemery, bylonicum, Achantinum, Saracenicum, is a Gum that is brought to us in large Tears, or white Pieces, inclining sometimes towards a yellow, clear, transparent, and glewy in the Mouth, without manifest Taste: It flows by Incision from a thorny Tree, call'd *Acacia*. This is a noble Tree growing in *Egypt*, and cultivated in several Gardens of *Europe*, having Sprigs and spreading Roots, and a Trunk rising six Fathom Height, solid, full of Branches and Boughs, arm'd with strong and stiff Thorns or Prickles; the Leaves are small and fine, growing by Couples on each Side of a Nerve or Rib, that is two Inches long: The Thorns or Prickles are of a bright green Colour, a quarter of an Inch long, and the twelfth Part of an Inch broad; out of whose Wings the Flowers come forth in round Heads, resting upon a Foot-stalk an Inch long; they are of a golden Colour, single-leav'd, of a fragrant Smell; and from a small narrow Pipe, enlarging themselves to a wide-mouth'd Cup with five Notches, adorn'd in the middle with a numerous Train of Threads, or small Chives, and a Colour inclining to a reddish, two Inches long, and bending or crooking, after the Manner of a Bow, in whose Cavity are several Partitions, distinguish'd with fungous or spongy Membranes, of a whitish Colour, containing Seeds that are of an oval Figure, flat and hard.

The greatest Part of the Gum we call *Arabick*, that is in the Druggists Shops, comes not from *Arabia*, but is only a Gum that is like it in Figure and Property, that is brought from *Senega*, or rather a Collection of several aqueous Gums, found upon several Sorts of Trees, as Plums, Cherries, &c. all which are in some Measure, pectoral, moistening; cooling, agglutinating and sweetening; proper for Rheums, Inflammations of the Eyes, L'osencs, &c. The true Gum *Arabick* falls by little and little from the Trees, especially in Time of Rain; and agglutinates or sticks together in large Pieces, that are fine, clear, white and transparent; and this is call'd Gum *Turick* that is used by the Silk Dyers.

[The true Gum *Arabick* is the Product of the *Acacia vera*. Rai. Hist. 1. 976. *Acacia vera Aegyptiaca Siliquis Simosis sive Lupini*. Breyn.

Prodr. 2. 2. *Acacia foliis Scorpiordis Leguminosæ*. C. B. Pin. 392.

But there is indiscriminately brought over with this, the Gum of the *Acacia Indica Farnesiana*. Ald. 2. Rai. Hist. 1. 977. *Acacia Indica siliqua tumida tuberosa*. Breyn. Prod. 2. 2. The Gums of both these Species are much of the same Nature, but they differ something in Form and Colour, that from the true *Acacia* being in thicker Drops, and something yellowish, and that from the *Farnesian* slenderer, and perfectly white.

7. Of Turick Gum.

THE *Turick*, or *Turis Gum*, is no other than the true *Gum-Arabick*, fallen from the Trees in a rainy Season and mass'd together; which is brought from *Marseilles* in great Lumps, that weigh sometimes more than five hundred Weight a-piece, which happens from their close Stowage in the Ships that bring 'em over. Chuse the dry, clean, bright and transparent Gum, and the whitest you can get: This Gum is much used by the Silk Dyers.

8. Of the Vermicular Gum.

THE *Vermicular*, or Worm-like Gum, is the Gum *Arabick* or *Senega*, which falling from the Trees twisted, remains in the Figure or Shape of a Worm, from whence it takes its Name. Chuse the white, clear, and transparent, in little Windings; the dry and true *Arabick*, especially for the Treacle, which is the principal Intention of it.

9. Of English Gum.

THE *English Gum* is a white *Arabick*, or *Senega*, dissolv'd in a little Water, and reduced into the Form of Paste, after having spread it upon a Stone oil'd, of what Thickness they please, and then leaving it to dry a little; that is to say, to the Consistence of *Flanders Glue*; after that they cut it as they please, and dry it. This Gum is made to curl Hair, and upon that Account is call'd the curling and *English Gum*, because the *English* first made it.

10. Of Gum-Senega.

THE *Senega Gum*, which we frequently call *Gum-Arabick*, and which is sold at this Time in our Shops for it, is a Gum which flows from the Trunk and large Branches of Trees, furnish'd with Thorns and very small green Leaves, and white

white Flowers, from whence arise round and yellow Fruit resembling Figs. These Trees grow plentifully in several Parts of *Africa*, in *Guinea*, &c. from whence this Gum is brought from *Senega* by the Blacks, or the white Men, that come from the Mountains, and who carry it on their Back, or on Camels, in Panniers made of Palm-Leaves, to the *French* Establishment at *Senega*, from whence it is sent by the Merchants to several Ports of *France*.

[The Gum *Senica*, or *Senega*, is brought to us in large Pieces; it is a Kind of Gum *Arabick*, and drops from another Species of the same Tree. The *Acacia Siliquis Compressis*. Ind. Med. 57. It is much of the Nature of Gum *Arabick*; and commonly what we buy for Gum *Arabick*, is this Gum broken into small Pieces.]

11. Of the Country Gum.

THIS is such as the Peasants bring to *Paris*, which they gather from their Fruit-Trees, as Plums and Cherries, that come forth from the Trees in the same Manner with the former, and are so much like some of them in Colour, Form, Substance and Nature, that they are not to be known asunder; so that many People believe that they are all but one and the same thing, however they have all one and the same Quality and Operation, and are used to cure Coughs, Colds, Catarrhs, Hoarseness, Shortness of Breath, &c. Chuse it as dry and clean as may be.

[This is bought up by our Druggists, who mix it among what they call their Gum *Arabick*.]

12. Of Gum-*Tragacanth*.

THIS Gum, which we usually call *Pomet*. *Traganth*, or *Tragacanth*, is a white curled Gum made like little Worms, of an insipid mucilaginous Taste. The Shrub which produces it, is small and prickly, supply'd with very little Leaves of a whitish Green, which the People of *Marseilles* call *Fox-Beard*, or *Goat's-Thorn*. This Gum flows by the cutting of the Trunk, and the thick Roots of these little Shrubs; they are numerous in *Syria*, especially about *Aleppo*.

This Shrub has Roots, according to *J. Bauhinus*, that dive deeply into the Ground, spriggy, and of a brown Colour, sending forth several Twigs, running and spreading along the Surface of the Earth, in a round Figure or Circle, with coupled Leaves growing upon a Rib, ending in a sharp Thorn or Prickle. They are of a roundish Shape, of a whitish Colour, and soft. The Flowers are papilionaceous, of a whitish Colour,

inclining to a blue, and running together in round Heads; unto which succeed Cods, that are cover'd with white Hairs, and distinguish'd into two Apartments, in which are contain'd Seeds of the Shape of a Kidney. There is nothing that grows more frequently upon the Sea Coast, about *Marseilles*, and upon *Harper's Point* or *Cape*, nigh *Toulon*, than this Thorn. This Gum issues out of the wounded Roots of this Thorn, running together in Lumps of different Sizes, some bigger and some less; some very clean and clear like *Ising-Glass*; others again looking more blackish and foul: Both this and Gum-*Arabick* thicken the Humours, and moisten; but they are chiefly used for the Incorporation of Powders, and are dissolv'd in *Rose-Water*, and the like, and a Mucilage extracted thence.

Tragacanthum, or *Dragacanthum* Gum-*Traganth*, is a white, shining, *Lemery*. light Gum, in little long Pieces, slender and curled, or winding, in the Nature of Worms: They get it by Incision from the Root and Trunk of a little Shrub, call'd by the same Name *Tragacantha*, or *Spina Hirci*, *Goat's-Thorn*: It bears several hard Branches, cover'd with Wool, and furnish'd with white Thorns, and very small thin Leaves, rang'd in Pairs, and ending in a whitish Thorn. The Flowers grow on the Tops of the Branches, join'd several together; they are leguminous, and like those of the little Broom, but white. After they are gone succeed Pods, divided each into two Partitions, full of Seeds, the Size of that of Mustard, and the Shape of a little Kidney: The Root is long, and stretches wide; it is as thick as one's Finger, white and woody.

[The Shrub which produces this is the *Tragacantha vera*. Park. 995. *Astragalus Aculeatus fructicosus*, *Massiliensis Tragacantha Dietus*. It is kept in the Gardens of the Curious, and flowers in June.

The *Poterium* is another Species of this Shrub. It is the *Tragacantha Granatensis foliis incanis deciduis flore albo*. Hist. Ox. 2. 113. *Tragacantha altera seu minor Poterion forte Dioscoridis*. Park. 996. The Root of this was once esteem'd good in Nervous Cases, but at present is never seen in the Shops, or heard of in Practice.]

13. Of Camphire.

Camphire is a resinous and very combustible Gum, of a penetrating *Pomet*. Smell, and easy to dissipate into the Air, because of the Sulphur and volatile Salt, of which it is compos'd. It flows from the Trunk and large Branches of great Trees, that have

have Leaves like those represented in the Figure hereof, whose Original is in my Hands, given to me by Mr. *Tournefort*: These Trees grow plentifully in the Isle of *Borneo*, and other Parts of *Asia*, and in *China*.

The Inhabitants of the Places where these Trees grow, cut the Trunks, from whence flows a white Gum, which is found at the Foot of the Tree in little Cakes, and which is brought into *Holland* to be refin'd. This Gum, as it comes from the Tree, and as it comes out of the Country, is call'd *Rough Camphire*; which, to have its requisite Quality, ought to be in brittle Pieces; and being broken should be like white Salt, of the Smell mention'd before, the driest and least impure that may be.

This rough or unrefin'd *Camphire* is sometimes to be met with at *Rouen* and *Paris*, from whence it is sent to *Holland* to be refin'd, because no Body else will take the Pains or Trouble to do it but the *Hollanders*. I wonder what all our Chymists have thought on, that they never yet have inserted into their Books the Manner and Way of refining *Camphire*: Yet nevertheless some believe that the *Camphire* we sell is just as it is drop'd from the Tree, which is wide of the Truth; since the rough *Camphire*, as it comes from the Tree, is in Pieces of different Sizes, and like white Salt that is very dirty; and that we sell is in Cakes made in cover'd Pots, white, clear, and transparent; which lets us understand it has been work'd, and could not come so from the Tree: And for the Satisfaction of the Publick, I will lay down the Manner of refining it, which was never told me by any Person, but as I discover'd it by Experience, by which I have learn'd that,

They refine or purify rough *Camphire* by putting it into a Matrafs, or other subliming Vessel, after it is pounded, and after half the Vessel is fill'd with the Powder, they stop it lightly; then they place it upon a gentle Fire, and presently the more subtil Parts of the *Camphire* rise and cling to the Top of the Vessel; and when all is sublimed, they find it fine, white, transparent, and thick, according to the Quality of the unrefined *Camphire* that was employ'd. After Sublimation they meet with a *Caput Mortuum* at the Bottom of the Vessel that is of no Value. There adheres to the refin'd *Camphire* a *Camphire* that is extremely white, and all in little Grains, which is likely what would not incorporate as the other. As the rough *Camphire* therefore is common enough among us, I know no Necessity we lie under, to let it all pass thro' the Hands of the *Dutch*, to make it either useful for Medicine, or other Purposes; as Fireworks, or the like. As

to its Virtues, Mr. *Lemery* says, the Oil is very valuable for the Cure of Fevers, a Piece of Scarlet Cloth which has been dipt into it, being hung about the Neck. This Oil is made by the Assistance of Spirit of *Nitre*, that makes it of an Amber Colour; and this is wonderfully recommended in Pains, and where the Bones are carious.

Other Authors are of Opinion, that the *Camphire* of the Shops, is obtain'd from a Tree that rises the Height of a Man, furnish'd with a Number of Branches and Boughs, spreading far abroad, and bearing Leaves very thick, and close by one another, not much unlike the Leaves of the common Bay-Tree, bright, smooth, and somewhat curled and waved about the Edges; of a dark green Colour, a sharp aromatick Taste, and of a strong vehement Smell: None as yet has given a perfect Description of the Flowers of this Tree; yet it is certain that a Fruit succeeds to the Flowers coming out of a longish Cup: Within this Fruit is enclosed a round Shell of a blackish Colour, inclining to a brown, not very hard, containing a fourish Kernel, cloven in two, being fat, of a biting aromatick Taste, but not unpalatable. This Tree grows plentifully in the Country of *Japan*. *Camphire* is extracted from the Roots of this Tree; they cut the Roots into small Pieces, and throwing them into a Brass Kettle, they cover it with a Lid that is broad at the Bottom, and tapering, sharp or narrow at the Top, like the Head of an *Alembick*, and putting the Kettle over the Fire, that volatile Salt, the *Camphire*, ascends and cleaves to the Cover or Lid. This *Camphire*, at first, is of a sordid whitish Colour, and very foul; but after the *Hollanders* have refin'd it by the Help of Fire and Glass Vessels, it is so order'd and elaborated, that it becomes transparent.

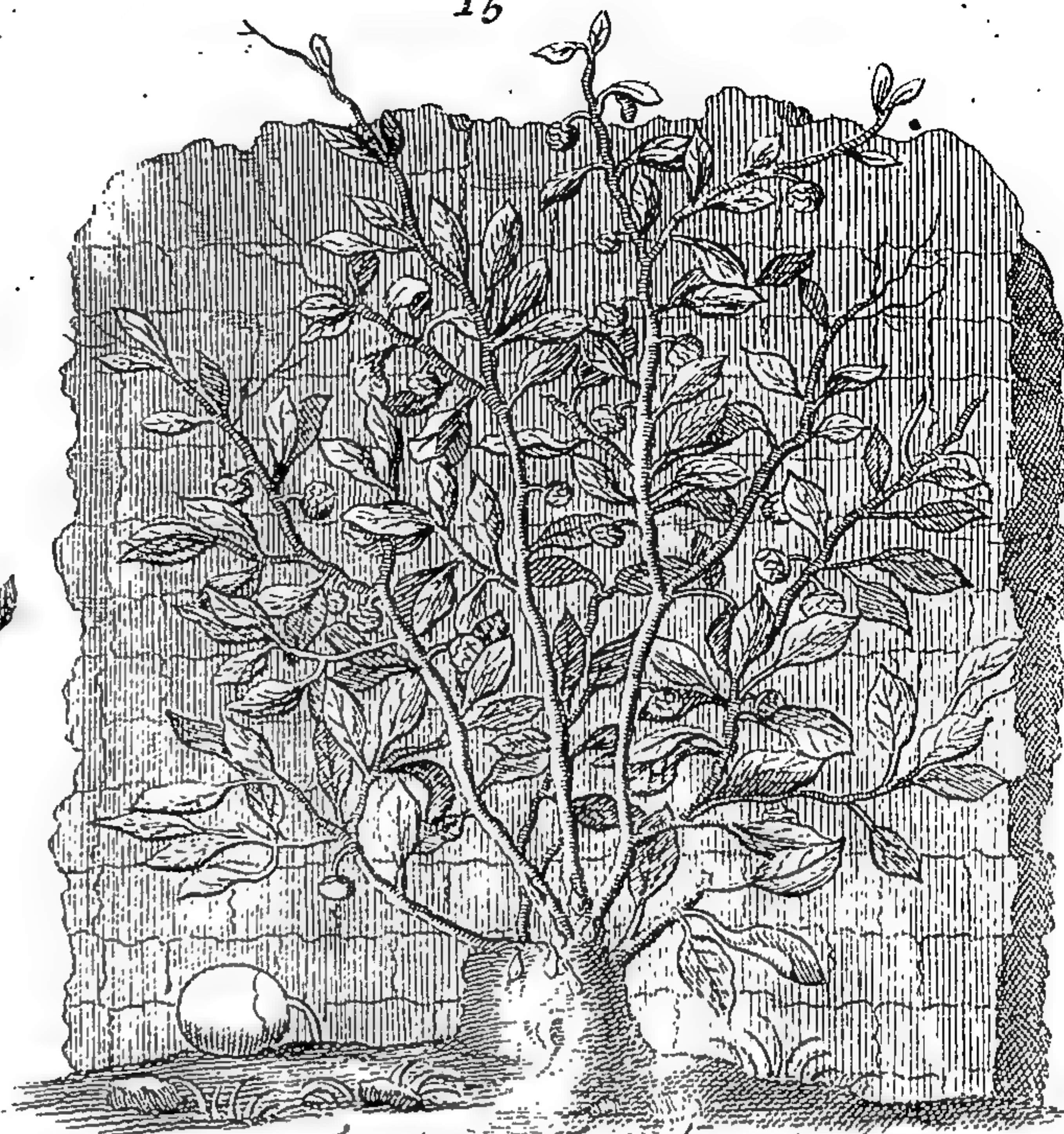
Some say that *Camphire* sometimes flows naturally or spontaneously from these Trees, or else by making deep Incisions into them; but the best *Camphire* is drawn from the Roots of the *Cinnamon-Tree*, as others aver: Chuse such as is white, transparent, brittle, dry, of a biting pungent Taste, and that smells like Rosemary, but much stronger: It is a true oleaginous volatile Salt, abounding with Sulphur, whence it easily dissolves in Water and Spirit of Wine. This Medicine provokes the Courses, and assists wonderfully in Suffocations of the Womb: Besides its Faculty of subduing Hysterick Distempers, it is also anodyne, procures Sleep, and resists Putrefaction; upon which Account it is often prescrib'd in malignant Fevers, and after the Use of Emetics, to refresh and restore the fainting and drooping Spirits. Spirit of Wine camphorated, may be taken inwardly

14



Benjamin.

15

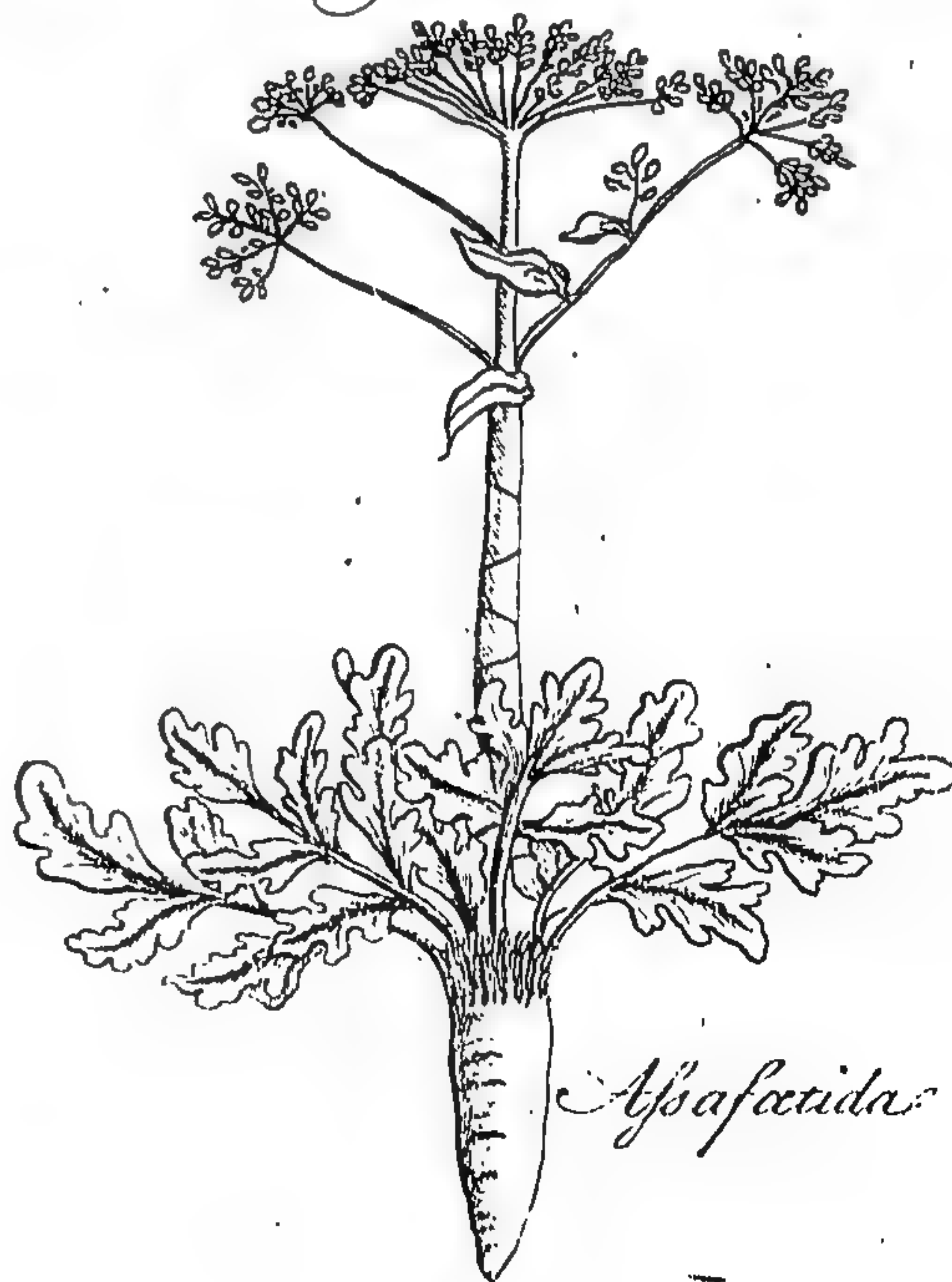


*The Sterax Tree y' creeps upon
y' Wall.*

20



Myrrh.



Asafetida.

wardly to a Spoonful, and outwardly it powerfully resolves, diffuses, and not only prevents, but also cures a Gangrene. An Oil is prepar'd from it besides that mention'd, by dissolving it in the highly rectify'd Spirit of Turpentine, which is an efficacious Medicine against Rheumatism, Sciatica, or Hip-Gout: It is used in the white Troches of *Rhases*, the Ointment of *Cerusse*, in the red desiccative Ointment, in the Cerate of *Sanders*, the Styptick Plaister of *Paracelsus*, &c.

Camphora seu Caphura, or *Camphire*, *Lemery*. is a Kind of white light Resin, that is very volatile, combustible, of a strong penetrating Smell, that flows from the Trunk and large Branches of a Tree resembling the Cherry Tree, that grows in the Isle of *Borneo*, and in *China*: This *Camphire* is found at the Root of the Tree, where it is form'd into Pieces or Lumps of different Sizes, which is call'd rough or unrefin'd *Camphire*; this is refin'd by subliming it over a gentle Fire, as hath been already hinted.

There are some who affirm the *Camphire* to be a Gum that distils Drop by Drop, from a great Tree much like a Walnut-Tree in *China*, and in the Islands of *Japan*, *Java*, *Borneo*; from which last Place, the best is said to come, and other Parts of the *East-Indies*, from whence it is brought to us in *Duppers*, and Cakes unrefin'd; which when purified, is of a white Crystalline Colour and a strong odoriferous Smell, volatile in Quality, and ready to dissolve in oily and spirituous Bodies: Being set on Fire, it is almost unextinguishable, burning not only in the Air, but Water, and therefore is a proper Ingredient for all Sorts of Wild-Fire.

That which is brought out of *China*, is in little Cakes, but is not accounted so good as the *Bornean*. It is so very subtil and volatile, that it is difficult to keep it from losing itself even in Quantity and Substance, unless it be close stopp'd up in Glass Bottles: This is an excellent Remedy for Hysterick Fits and Vapours, being smell'd to, used Clysterwise and given inwardly from three Grains to six in any convenient Vehicle; it is also good in continual and intermitting Fevers, whether Putrid, Malignant or Pestilential, being given inwardly, or hung about the Neck; because being of such subtil Parts, it insensibly enters into the Pores, and causes a Rarefaction and Perspiration.

There are several Preparations of *Camphire*, but not one of them exceeds the pure Substance itself, or a bare Dissolution of it, because of the Purity and Fineness of its own Body: As the Oil, simple and compound, the essential Spirit, the *Camphire* terebinthinated, Troches, and the

like, which rather debase than exalt this noble Medicine to a higher Pitch of Excellency: It is certain this abates Lust, resists Inflammations, and prevents Gangrene; the two first of which are apparent from the great Power this has to overcome the Force of the *Cantharides* inwardly taken, and to render them so far from being dangerous, that they become the most efficacious Remedy in Practice.

[The *Camphire* we see in *Europe*, comes either from *Japan*, or from *Sumatra* and *Borneo*; the Tree which produces the *Japan Camphire*, is the *Laurus Camphorifera*. *Kæmpf. Am. Ex. 770. Arbor Camphorifera Japonica foliis laurinis, fructu parvo globoso calyce brevissimo*. *Breyn. Prod. 16*.

That which produces the *Sumatra* and *Borneo Camphire*, is the *Arbor Camphorifera Sumatrana Grimmii*. *Rai. Hist. 2. 1679. Camphorifera Sumatrana foliis Caryophylli Aromatici longius mucronatis, fructu majore, oblongo, Calyce amplissimo, Tulipæ figuram quod ammōdo repræsentante*. *Breyn. Prod. 2. 16*.

The *Borneo Camphire* is much more valuable than that of *Japan* or *Sumatra*, but as those are cheaper, we have very little of the *Borneo* Kind brought into *Europe*.

There is a more precious *Camphire* than either of these, which comes from the Roots of the Cinnamon Trees in the Island of *Ceylon*; but this we never see.

The *Camphir* is got by distilling the Roots of these Trees with Water, in an Alembick with a Head made of twisted and platted Straw; all the Humidity evaporates thro' the Head, and the *Camphir* sticks to it. It is in this State of a greyish Colour, but after refining by Sublimation in a Sand Heat, it becomes white and transparent.

Taken inwardly, it is cordial, sudorifick, and anodyne, and used externally a powerful Discutient. The Antients believ'd it an Enemy to Generation, but that was wholly a Mistake.]

14. Of Benjamin.

THIS is a Gum that flows from the Trunk and large Branches of a *Pomet*. great Tree, by Incision, which grows plentifully in *Cochinchina*, chiefly in the Forests of the Kingdom of *Lao* and *Siam*; from whence the Attendants of the Embassadors of *Siam* brought a great Quantity to *Paris*, where it was sold at a good Price.

We have two Sorts of *Benjamin*, that in Tears and that in the Lump: Choose that in Tears, of a golden Yellow without, and White within, with reddish and whitish clear Veins; brittle, without Taste, but of a sweet, agreeable, aromatick Smell.

This.

This Description of *Benjamin* will not fail to surprize those who have never seen *Benjamin* as it comes from the Tree, and sticks to the Bark, having seen no other at *Paris*, but a Quantity of other Kinds of *Benjamin*; the first of which is that we call the *Benjamin* in the Tear, though it is in a gross Mass, which is usually clear and transparent, of a reddish Colour, mix'd with white Spots, as Almonds that are beat; whence it is called the *Amygdaloides*, or Almond *Benjamin*; this is the best Sort, and is said to come from *Sidon*, and *Samaria*; but that which is brought to us comes from the *East-Indies*, from *Sumatra*, and *Siam*, *Malabar*, *Surat*, and *Java*.

The second is the greyish, call'd *Benjamin in Sorts*, which if good, ought to be clean, of a good Smell, full of white Bits or Spots, as resinous and little loaded with Filth as may be; but have nothing to do with the Black, which is earthy, and full of Dross; and beware of the Artifice of having them all mix'd together, that they may sell the better. This Gum was not formerly used inwardly, either by the *Indians* or *Europeans*; but since Chymical Physick has been in Vogue, the following Preparations are made from it, a Tincture, Magistery, Flowers, Crystals, and Oil. The Flowers, according to *Lemery*, are made by putting the *Benjamin* into an earthen Pot, covering it with a Cone of Paper, and tying it round about under the Border; then setting it into hot Ashes or Sand; and, when the *Benjamin* is heated, the Flowers will ascend. Shift the Cone, and sweep off the Flowers every Hour or two, and keep them in a Bottle close stopp'd. Note, That *Benjamin* being very full of volatile Particles, easily sublimes over the smallest Fire, and the Flowers ascend in little Needles, very white; but if you give never so little Fire more than you should do, they carry along with them some of the Oil, which will make them yellow and impure; you must therefore perform the Operation gently to have the Flowers fair, which will have a very pleasant Flavour and Acidity.

These Flowers are, without doubt, the most essential Part of the *Benjamin*, whose principal Virtues are as well to subtilize bad Humours and expel them through the Pores of the Skin, as to loosen and expel the thick and viscous by the ordinary Ways, chiefly those of the Breast and Lungs: Dose from three Grains to ten in any proper Liquor. They are profitable in vehement Catarrhs, Coughs, Colds, Asthmæ, and Obstructions of the Lungs; procure Sweat excellently in venereal Cases, given in a Decoction of *Guajacum*, and fortify a weak Stomach. From these Flowers a Tincture is likewise extracted with Spirit of Wine tartarized, whose sulphureous Parts have a

good Agreement with the volatile Salt of the *Benjamin*; so that this Spirit not only extracts a Tincture from the Flowers, but from the buttery Substance of the Gum, much more pure and subtil, and which will work in less Quantity than the Tincture drawn out of the crude or gross *Benjamin*.

Benzoinum officinarum, *Ben Judæum*, or *Asa dulcis*, the *Benjamin* of the *Lemery*. Shops, is a resinous Substance, running together in large Lumps or Clots, being bright, shining, of a brown Colour, brittle, and easily crumbled into Bits, adorn'd with several white Flakes or Specks, like the inner Substance of Almonds, inflammable and odoriferous.

Benjamin is most esteem'd when it is very clear, and almost transparent, of a light brown Colour, inclining to red, and plentifully furnish'd with white Flakes; that which is black is not so much valued: This is brought from the *East-Indies*, but more particularly from *Sumatra* and the Kingdom of *Siam*. The *Benjamin Tree* is large, tall, and beautiful, as *Garcus ab Horta* relates, bearing Leaves like the Citron, or Lemon Tree, but smaller, and not shining so much, being whitish upon their under Side.

A Tree bearing the Leaves of the Citron or Lemon Tree, and dropping *Benjamin*, which seems to answer the Description of *Garcus*, was not many Years ago sent out of *Virginia*, by Mr. *Banister*, to the Right Reverend *Henry Lord Bishop of London*, which grows now in the Royal Garden at *Paris*, being the Gift of the aforesaid Bishop. It flowers in the Beginning of the Spring, but has not produced any Fruit as yet. *Benjamin* promotes Expectoration, and is of great Force and prevalency in the Asthma, or Stoppage of the Lungs, and a lingering phthical Cough; but chiefly the Flowers of it, which being fresh and new made, may be given from six Grains to twelve: They are likewise endued with a Virtue to provoke Urine and Perspiration, and the following is admirable in a Pleurisy. Take *Carduus*, and red Poppy Water, of each three Ounces; Flowers of *Benjamin*, ten Grains; of the Oil of Cinnamon, two Drops; Syrup of red Poppies, one Ounce; make a Potion to be repeated according to the Nature of the Disease, twice or thrice in twenty-four Hours.

[The Tree which produces the *Benjamin* is the *Arbor Virginiana Pisaminis folio baccata Benzoinum redolens*, Pluk. Alm. 42. *Arbor Benzoinifera*, Breyn. Prodr. 2. 16. *Arbor Benzoini Grimmeri*, Ephem. Germ. A. 11. 376. f. 31. It grows both in the *East* and *West Indies*. We have the *Benjamin* from the *Philippine Islands*, from *Siam* and *Sumatra*.

We have three Kinds of *Benjamin* in the Shops ; the *Amygdaloides*, which is reddish, with white Specks ; the Grey, and the Black : The first we have from *Siam*, the second from *Java* and *Sumatra*, and the last from *Sumatra* only.

There is beside this Difference in that from the same Tree ; that Part of it is white and yellow, and perfectly fine, and Part brownish, dark and dirty.

Benjamin was unknown to the ancient *Greeks* and *Arabians* ; and there were many Disputes among the later Writers about the Tree that produced it, before the Truth was known.]

15. Of Red Storax.

Pomet. THE *Red Storax*, or *Frankincense*, of the *Jews*, which is very common among us, is a Rosin, issuing from the Trunk and thick Branches of a Tree that is of no great Height, but whose Leaves resemble those of the Quince Tree, only that they are smaller, and the Fruit is of the Bigness of a Filbert, in which is contain'd a white Kernel that is oily, and of a Smell entirely like the *Storax* ; and as the *Storax* is sometimes found in Pieces in the Shells of this Fruit where it has accidentally got in, it gives Occasion to several to believe that the *Storax* runs from these Nuts.

This Gum is brought us by the Way of *Marfeilles*, from several Parts of *Syria* and the *Levant*, where those Trees grow plentifully. Chuse that which is in Lumps or Clots, of a red Colour, with some small whitish Lumps interspersed, sweet, and of a fragrant Smell ; but reject that which is dry, black, branny, or foul, and smells like the Liquid *Storax* ; as also refuse the *Storax* in the Cake or Roll, which is a Composition of Liquid *Storax*, and abundance of other Drugs of little Worth ; as also that which is in Dust, being little else but the Saw-Dust of the Wood. *C. Bauhinus* says, the Tree which produces it is about the Bigness of the Olive Tree, and grows in the Woods of *Provence* in *France*, between *St. Magdalen* and *Toulon* : In its Trunk, Bark and Leaves, it resembles the Quince Tree. The Flowers grow upon small Twigs, being not much unlike the Flowers of the Orange Tree ; but single leav'd, having their lower Part fistulous, and their upper Part starr'd like a hollow Cup, and Bell-fashion'd, containing a round globous Pointal, that passes away into a Fruit of the Bigness and Shape of a Filbert Nut, being thick and pulpy ; at first of a sweetish Taste, but afterwards turning bitterish, in which is contain'd a Stone that is very hard, including a white Kernel.

16. Of Calamite Storax.

THE *Calamite Storax*, or that in Tear or Grains, which we have from *Marfeilles* or *Holland*, is a reddish Mass, full of white Grains or Bits, and sometimes they are separate, that is to say, it is all in Tears, white within and reddish without, of a middling Consistence, and of a sweet fragrant Smell, almost like Balsam of *Peru*. Chuse such as is in separate Tears or small Pieces, and the driest and least sticking to the Fingers that may be.

Storax Calamita is of a resinous Substance, fat, clammy, soft in handling, of a fragrant Smell, and a reddish Colour : The best is that which is in Grains, and with some white Fragments in it, or yellowish, with a very sweet Scent, and that yields like Honey when soften'd. That is worse which is mix'd with Bran, but that which is mix'd with Saw-dust, or is black and mouldy, or without Scent, is worst of all, and naught. *Matthiolus* says, it is a concreted Rosin from a Tree, dry and sweet, and is called *Storax Calamita*, from the *Calami*, or *Canes*, in which it was used to be brought from *Pamphylia*.

Mr. *Charas* says, he believes that the *Storax* which is brought to us, and which they pretend to bring out of the *East*, is not the true *Storax*, but a Composition : The high Price at which it has been sold for these many Years, has encouraged the Villainy of those Cheats, and the Trials which he had made thereof had convinced him. It cannot, however, says he, be counterfeited with *Galbanum* or *Ammoniacum*, because of their strong Scent, whereas *Storax* is very pleasing and odoriferous ; but doubtless, it may be adulterated with the white Tears of *Benjamin*, or some resinous Gum without Scent, or which may be easily out-scented by the *Storax* : To which Purpose, continues he, I have thought fit to publish what I have experimented, viz. That having *Storax* in Tears by me, whose Smell, Taste, Colour, Form, and Body, were such as are required in the true *Storax*, I undertook to soften one Tear in my Hand, intending to incorporate it afterwards with other Drugs of a like Substance : I was astonish'd when I found all the good Scent of the *Storax* to be lost in my Hand, and the same Tear not fit to impart any Scent or Virtue to the aromack Balsam I was making : Therefore, trusting neither to the *Storax* made up like Bowls, which is encreased with Liquid *Storax*, nor to the other full of Saw-dust, which is sold in the Shops ; I chose a *Storax* of a very delicious and fragrant Scent, full of Grains or little Tears, and free from Dirt, out of which I extracted the Gum thus : Take of this
Storax

Storax eight Ounces ; put it into a Pipkin with a Pint of White-Wine ; place it over the Fire, and stir the Whole gently with a *Spatula*, 'till it is sufficiently dissolv'd ; put it out immediately hot in a strong Bag, tie it hard just above the Gum, and press it out between two hot Plates ; so will you have about two Ounces of pure Gum, both fair and fragrant, and every way exceeding all the Sorts of *Storax* in Tears.

It is emollient, digestive, cephalick, neurotick and pectoral ; cures Coughs, Catarrhs, Hoarseness, Heaviness, Barrenness, and Hardness of the Womb : Taken with Turpentine as a Pill, it opens the Belly, and, after an excellent Manner, eases the Pains of the Stone, and takes away all Obstructions of Urine by Sand, Gravel, &c. Outwardly it is vulnerary, discusses Tumours, eases all Sorts of Pains and Aches, and stops Catarrhs, used as a Fume. The Tincture of *Storax* has all the Virtues of the Gum, stops *Gonorrhoeas*, and is said to be a Specifick against Barrenness in Women : It is a Cordial against fainting Fits, and also good in Diseases of the Head, Brain and Nerves. The Pills made up with this Gum and *Chio* Turpentine have all the Virtues of the Gum, stop Gleetings in Men and Women, ease Pain in making Water, and remove all Obstructions of Urine. Dose from a Dram to two Drams. There is an acid Spirit drawn from it, that is aperitive and very penetrating, and the yellow Oil is good against Palsies, Numbness, Convulsions, &c. either inwardly taken to three or four Drops, or outwardly applied to the Part affected. The red Balsam made of the *Storax* has the same Virtues, but is not so subtil and pure, and so is seldom given inwardly.

17. Of Liquid Storax.

Pomet. THE Liquid *Storax* is a thick viscid Matter, of the Consistence of Balsam. It is composed of four Ingredients ; which are, *Storax*, the raw Pine-tree Pitch, call'd white Incense, Oil and Wine, beat up in Water to the Consistence of an Ointment, of a greyish Colour like Potters Clay. Chuse your Liquid *Storax* as grey as may be, that has the *Storax* Smell, of a good Consistence, and as little of Filth and Dirt as may be : Its Use is in Surgery, especially for an Ointment that bears its Name, and is much used in the Hospitals, especially *Hôtel Dieu* in Paris, where it serves them very successfully in the Cure of the Scurvy, Wounds and Gangrene : The Perfumers use it but seldom, if they can get the other *Storax*.

It is a fat Balsam-like Substance, much thicker than *Venice* Turpentine, of a strong Smell and of

a whitish Colour, which is kept in Water because of its Clamminess : It is brought to us from the *Streights* ; that this *Storax* differs much from the other, is apparent. *Matthiolus*, *Dioscorides* and *Baubin*, are of Opinion it is the Composition before describ'd ; but *Serapio* will have it to be an Exudation from the Kernels or Fruit of the Tree : *Avicenna* will have it from the Bark ; and *Gerard* a Liquor, or Gum, that falls from the *Storax-Tree*, and will never be hard : *Parkinson* saith, that none of the Ancients have made Mention of any such Thing, and says, it is assuredly some other Thing, of which, as yet, we have no Knowledge ; but whether we know the Original of it or no, it is less Matter, since we know the Thing, and, by manifold Trials, the medicinal Uses thereof. Inwardly taken it opens Obstructions, discusses Wind, expels Vapours, helps Hysterick Fits, eases the Cholick, and provokes Urine. Dose from half a Dram to a Dram, in Pills or a Bolus. Outwardly, it is good against Sciatica, Palsy, Contraction of the Joints and Nerves, Bruises, Wounds, Ulcers, &c. made into a Balsam, or Plaister.

18. Of Pastiles.

THE *Pastiles* for burning are a Composition of *Benjamin* and *Storax*, *Pomet.* dissolved together over a small Fire as quick as may be : They are form'd into Tables of what Shape you please, and are in Goodness according to the Materials of which they are made ; some add to them Musk, Civet and Ambergrease. In short, they are made richer and meaner, as the Maker will afford ; but the more usual Additions are *Liquid Storax*, *Rhodium* and *Labdanum* ; and to make them black they seldom use any thing else than Charcoal : M. *Charas* mentions three Sorts, which may be found in his Book of Chymistry, Page 1057, where he calls them *Trochisci Odorati vel Aviculæ Cypreæ*.

19. Of Virgin Milk.

BESIDES the *Virgin Milk* made with *Lytharge*, we make another *Pomet.* from Tincture of *Benjamin* and *Storax*, which is what the Surgeons and Barbers use, by reason of its pleasant Smell. The Tincture of *Benjamin* and *Storax* is call'd *Virgin Milk* Tincture ; because when it is put into Water it will turn it white as Milk. Those who would have their *Virgin Milk* fine use the dry Balsam of *Perru* in Shells, and *Storax* in Tears ; to which they add Musk, Civet and Ambergrease. Some who value

value not the Smell add Myrrh, because good for taking away red Spots in the Skin. This Tincture ought to be very fine, red, clear, and very fragrant, smelling the least of the Spirit of Wine that is possible.

Styrax, or *Storax*, is a fragrant resinous Gum, whereof there are three

Sorts: The first is call'd *Styrax ruber*, or the *Red Storax*; and by some *Thus Judæorum*, the *Jewish Frankincense*, because they believed it was the *Frankincense* which the *Magi* carry'd to the Saviour of the World. This Gum is in the Mass reddish or yellow, which they draw by Incision from a Tree of a moderate Height, call'd *Styrax Arbor* by Gerard and Ray, and *Styrax folio Mali Cotonei*, by C. Bauhinus and Tournefort. This Tree is like that of the Quince, but the Leaves are much smaller, oblongish, firm, green on the upper Side, and whitish underneath, and downy. The Flowers grow upon the Branches, collected several together; each of which, according to Mr. Tournefort, is a Funnel open at the Top, and cut into several Parts, disposed round, that makes a larged jagged Cup of several Points: When the Flower is gone there appears the Fruit, of about the Size of a Filbert, that is white and cover'd with a fleshy Rind, the Taste something bitterish; and under this Rind, or Shell, are two or three hard strong Kernels, full of a soft oily Seed, that has a Smell like the Gum of *Storax*, and an unpleasant Taste: The Gum ought to be chosen neat, soft, fat, of a sweet pleasant aromack Smell, and not too dry: It is sometimes full of the Saw-dust of the Wood of this Tree, and other Impurities.

The second Sort of *Storax* is nam'd *Calamita*, because it is often brought in Reeds to preserve its Beauty and Smell: Sometimes it is brought us in reddish Lumps, full of white Specks; sometimes in separate Tears, which, if fine, you ought to chuse, or else such as come in clean small Bits, that are reddish without and white within, and that smell like the Balsam of *Peru*: These two Sorts contain a good deal of Oil and some volatile Salt, are proper to strengthen and refresh the Brain, Nerves and Stomach, resist malignant Humours, and mollify the Hardness of the Spleen, Glands, &c. The third Sort is *Liquid Storax*, which is an oily, viscous, gross Matter, having the Consistence of a thick Balsam, being made up of several Bodies incorporated together; and is emollient and very resolute, and revives the Brain by its Smell; but is seldom apply'd otherwise than externally.

[The *Storax-Tree* is the *Styrax Arbor*. J. B. 1. 341. Rai. Hist. 2. 1680. *Styrax Arbor vulgaris*. Park. 1530. *Styrax folia mali Cotonei*. C. B. Pin. 452.]

There are two Sorts of the *Dry Storax*, the *Calamita* and the *Rubra*, these are both the same Gum, but different in Purity; the *Calamita* is that in Grains, and the *Rubra* that in the Lump.

The true *Liquid Storax* is a reddish brown Substance, of the Consistence of common Turpentine and of a strong Smell, made from the Bark of the same Tree which produces the other *Storax*; but this is no where to be found among us at present; what is now sold under that Name is a Bird-lime made with the Bark of the *Indian Rosa Mallos*, boil'd in Sea Water; and even that we can seldom meet with, the Mixture describ'd by *Pomet* being generally sold instead of it.]

20. Of the Abyssine Myrrh.

MYRRH is a resinous Gum that flows from a little Shrub that is *Pomet*. very thorny, by Incisions that are made into it, in clear transparent Tears of a white Colour, that in growing older become of a deep Reddish. These small Trees, whose Leaves come nearest in Likeness to the Elm, grow plentifully in *Happy Arabia*, *Egypt* and *Africa*, especially among the *Troglodytes*, from whence it derives its Name, as well as that from *Abyssine*; because they gather a great deal in the Kingdom of the *Abyssines*, or *Prester John's* Dominions. Chuse the finest Tears, of a golden yellow Colour, clear and transparent, brittle, light, bitter to the Taste, of a strong agreeable Smell: And thus chosen, it is the true *Myrrh*, or *Stacte* in Tears.

They ought to be undeceived who believe, according to what a late Author has advanced, that all the *Myrrh* the Druggists sell has not the requisite Qualities it should have; as for the little the Apothecaries sell, it is not worth speaking of; beside, that what they sell they first buy of the Druggists. However, as we cannot always find *Myrrh* so perfectly fine as we could wish, we must be satisfy'd if we get that in small Lumps, or large red Tears, clear and transparent, that when broke has little white Spots in it: This is brought out of *Turky* and *Æthiopia*, from whence comes the best Kind, being of a bright yellowish, or red Colour, somewhat clear, brittle, of a biting and very bitter Taste, a strong Smell, fat, resinous, and mark'd within with white Specks: It is either firm and solid, which is properly call'd *Myrrh*; or liquid, which, according to *Disco-rides*, is call'd *Stacte*, which is so gather'd from the Tree without Force.

There is prepared from it an Extract, an Oil or Liquor of *Myrrh*, Troches, and an Oil by Distillation: As to the Liquor, *Lezery* says it is the true soluble Part of the *Myrrh*, moisten'd

with the Humidity of the Whites of Eggs, and the moist Places in which it is made, which is generally a Cellar; and in his Opinion this is the best Oil yet invented; for if it be drawn by Spirit of Wine or Distillation in a Retort, it is so tormented that it loses its best Parts; whereas *per Deliquium*, what volatile Parts this Gum contains are preserved in their natural Being, the Humidity joyn'd to it not being able to alter its Nature.

Myrrh opens and removes all Obstructions of the Bowels, provokes the Courses, and removes all, or most Distempers incident to the Womb; being given in a Bole, Electuary or Powder, from six Grains to twenty. *Stacte* is that liquid Part which is found in the Centre or Middle of the Lumps or Clots of *Myrrh*, when they are fresh and new, or squeeze'd from the *Myrrh*, as *Dioscorides* teaches. Besides its opening and anti-hysterick Faculty, it is likewise used with Success in a Quinsy, Hoarseness, Cough, Pleurisy, Fluxes of the Belly, and Quartan Agues: Outwardly, in Wounds, Tumours, Gangrenes and rotten Bones: It attenuates, dissolves and resists Putrefaction. *Myrrh* has given a Name to the Troches of Myrrh: It is also used in *Venice Treacle*, in the Confection of Hyacinth, Pills of Agarick, the Divine Plaister, in *Oxycroceum*, and many other Compositions.

Myrrha, or *Myrrh*, is a resinous Lemery. Gum, that flows by cutting a thorny Tree that grows in *Arabia Felix*, *Egypt* and *Æthiopia*, in the *Abyssines* Country, and amongst the *Troglodytes*; for which Reason the best is call'd *Myrrha Troglodytica*. It ought to be fresh, in fine clear Tears, light, of a golden Yellow, or reddish Colour, having little white Specks within, like those upon the Nails, of a fat Substance, a strong Smell, and not very pleasant, the Taste bitter and acrid; but as this Gum so chosen is rare, it ought to be reserv'd for internal Uses, and the common may serve for Plaisters, Ointments, &c. It is aperitive by Urine, and a little astringent by Stool, provokes the Courses, and hastens the Birth, is an excellent Vulnerary and proper in Ruptures, both internally and externally apply'd. The *Myrrh* which the wise Men of the *East* presented to our Saviour, was likely a Drug different from ours; for it is represented to us as a very precious aromatick Perfume, instead of which our *Myrrh* is common, and has neither Taste nor Smell that is agreeable. Some hold that it was the *Stacte*, of which I shall treat in its Order; others will have it to be the *Storax*; others again pretend that it was a very scarce and fragrant Gum, or Balsam, which had then the Name of *Myrrh*, and which is now un-

known to us by that Name; but this is a Matter too difficult to decide here.

[The Tree which produces the *Myrrh* is yet unknown in *Europe*, and *Fuchsius* and many others are of Opinion, that what we see under the Name of that Drug was not the *Myrrh* of the Antients, but that what we now call *Benjamin* agrees much better than it with their Description of the *Myrrh*.

The most probable Conjecture in regard to the *Myrrh* offer'd by the *Magi* to our Saviour is, that it was an oily Liquor found in the Body of the *Myrrh-Tree*, as we have some Sort of Mention of such a Substance in some old Authors, who speak of it as very precious, and an Ingredient in the richest Perfumes.]

21. Of the Myrrha Stacte, or Liquid Myrrh.

THE *Stacte*, or *Liquid Myrrh*, is that which was presented to our Lord and Saviour by the *Magi*, or wise Men, and which the Ancients call *Stacten*, or *Myrrha Stacte vel Electa*, whose Scent was very grateful; as is observ'd in the third Lesson of the Office of the Virgin, where it is said in express Words, *Quasi Myrrha electa dedi suavitatem odoris*. It was a fat unctuous Liquor, which is met with in *Myrrh* newly fallen from the Tree, as also that which falls from young Trees, without Incision. But as at present, this precious Merchandise, or Commodity, is altogether unknown to us, several Persons have invented an artificial *Stacte*, by dissolving *Myrrh* in Oil, which they call *Stacte Unguent*. Others make it thicker, and give it the Name of *Artificial Stacte*.

Stacte, *Stacten*, *Myrrha Stacte*, or *Liquid Myrrh*, is a Kind of Balsam, or Lemery. gummy Liquor, that is of a fragrant Smell, and collected from under young Trees that produce *Myrrh*, and which drops from them without cutting. The Ancients preserv'd this Drug as a precious Balsam, and believed, with just Reason, that it was that Kind of *Myrrh* spoke of in the Gospel, and which the *Magi* brought to the Saviour of the World at *Bethlehem*, with Gold and Frankincense. This has the same Virtues with the other *Myrrh*, but is more efficacious; though the *Stacte* that we have brought us by the Merchants is oftentimes artificial, being made by dissolving *Myrrh* in Oil, and mixing a little Wax with it, to give it a Consistence.

[The true *Stacte*, according to *Dioscorides*, was no other than a liquid *Myrrh*, either press'd out of

of the common *Myrrh* a little moisten'd, as he was of Opinion; or, according to *Pliny*, flowing naturally from the *Myrrh-Tree* without Incision. It is the common Opinion that this was the *Myrrh* offer'd to our Saviour; but I cannot conceive how any Preparation of *Myrrh*, by Expression, could be so precious or so excellent as that must have been; and if it was only the spontaneous Flowings of the Tree I cannot but think we should certainly have been better acquainted with it by this Time, as naturally, among the Quantity of *Myrrh* we receive, we should at one Time or other have seen some of it.]

22. Of *Assa Fœtida*.

Pomet. *ASSA Fœtida* is a Gum that flows, during the Heats, from the Trunk of a small Shrub, whose Leaves are like Rue, that grows plentifully in the *Indies*, especially about the City of *Utar*, where it is call'd *Hingt*. It also comes from *Persia*, *Affyria* and *Libya*. The Natives of the Place cut the Trees just at the Roots, from whence runs a white Gum, inclining to Red, of a very stinking Smell; for which Reason the *Germans* call it *Stercus Diaboli*, or *Devils Dung*.

Chuse the *Assa Fœtida* in Clots, or Lumps, full of white Tears, dry, and which being fresh cut, will be of a yellowish White, that in a little Time after changes into a fine Red, tending to a Violet Colour, and whose Smell may be born with; and meddle not with that which is fat, nasty, full of Dirt and Rushes that come along with it. Likewise reject such as is black, and of such a disagreeable Smell as is scarce possible to bear: This Drug is of great Importance in Medicine, and much used by Farriers as well as the Physicians.

There are several other Names that *Assa Fœtida* goes by; as the *Syrian Juice*, or *Liquor*, the *Median*, *Persian*, &c. The greatest Part of it that comes to *France* is brought from *London*, from whence it is brought in large Earthen Vessels, like those in which we have Oil of Turpentine brought us sometimes from *Provence*. They have such vast Quantities of *Assa Fœtida* sometimes in *London*, as well as other Drugs, that they have great Warehouses fill'd with these Kinds of Commodities.

The *Assa Fœtida* in Tears is much finer and fitter for internal Use than that in the Lump.

Assa Fœtida is a Gum in great yellow Clots, of a strong unpleasant Smell, that drops out of the Trunk of a Shrub whose Leaves have a great Resemblance to those

of Rue: But *Bon* assures us, that it is press'd out of the Roots of a certain Plant growing in the Kingdom of *Persia*, not far from the Sea-Coast: And that there are two Kinds of this Plant, the first being a Sort of a Shrub, bearing Twigs and Branches very much resembling the Willow, or Osier: The *Assa Fœtida*, says he, is press'd out of the Chives, or Flowers, of this Plant, being cut small and bruised, which afterwards is dry'd and harden'd. The second Kind of *Assa Fœtida* is press'd out of the Roots of a Plant that sends forth very thick and stinking Stalks, bearing Leaves like those of *Spurge*. That of the Shops is a reddish Gum, consisting of whitish, and sometimes Carnation and Violet colour'd Drops, being of a bitter biting Taste, and a strong, vehement rank Smell, like Garlick or Leeks; that is the best which is brought out of the Eastern Parts, in clear, pure, transparent Drops: It is adulterated with *Sagapenum*. This Gum is cephalick, splenetick, hysteric and vulnerary; but chiefly used in Obstructions and Suffocation of the Womb, Obstructions of the Liver, Spleen and Lungs. It has been found a Specifick in the Epilepsy, Vertigo, Lethargy, and other Diseases of the Head. Dose from half a Scruple to a Dram, in Pills or otherwise.

This Gum will dissolve in Water, Vinegar or Wine, and therefore consists most of aqueous Parts, and has very little of Rosin in it; for which Reason it is not so often used with Spirit of Wine as with aqueous Menstruums. *Schroder* says, if any be troubled with the Epilepsy he ought presently to sit with his Head over the Fumes of *Assa Fœtida*; but it is generally taken inwardly in Pills or Tincture.

[The Plant which produces the *Assa Fœtida* is the *Assa Fœtida Disgunensis Hingisch*, *Umbellifera Levistic Affinis*, *Instar Pæoniæ ramosus caule pleno, maximo semine foliaceo, nudo, solitario Branchæ Ursinæ vel Pastinachæ simili Radice Asam fœtidam sudente*. *Kœmp. Amæn. Exot. 535, Fig. 536.*—*Altith seu Asafœtida, Javanis & Malais Hin. Dicta Bont. 41.* The *Assa Fœtida* flows either spontaneously or by Incision, from the Root. There have been various Opinions among Authors about the Plant which produced this Drug, and several different Trees and Plants have been described as yielding it. It is to *Kempfer* that we owe the Knowledge of the Truth. Many have doubted whether our *Assa Fœtida* be that of the Ancients; because they call'd it the Food of the Gods; but we now find that the *Persians*, *Indians*, and other *Eastern* People, eat it in Sauces, and call it expressly by that Name. The Plant which produces it grows plentifully in the Province of *Lahir*, in the Domi-

nions of the Great Mogul, and of *Chorasan* in *Persia*.]

23. Of Galbanum.

Pomet. **G**ALBANUM is a Gum that flows from the Root of a Plant which the Botanists call *Ferula Galbanifera*, or the Fennel-Giant, bearing the *Galbanum*; whose Leaves are, according to the Figure described, taken from the Original which I have in my Hands, given to me by Mr. *Tournefort*: On the Top of the Stalks grow flat Seeds of the Size and Thickness of our Lentils, which are frequently found among the common *Galbanum*. This Plant flourishes in *Arabia Felix*, *Syria*, and throughout *India*.

We have two Sorts of *Galbanum* from *Marseilles*; to wit, that in Tears and that in the Mass: The first ought to be chosen in fine Drops, yellow within and of a golden Colour without, bitterish in Taste, and of a very strong Smell. The other Sort in the Mass ought to be chosen dry, clean, the most furnish'd with white Tears, and the least fetid that is possible. It is a Drug much used in Physick, as well internally as externally.

Galbanum ought to be chosen fat, inclining to a reddish Colour, consisting of several whitish and shining Lumps; it will not dissolve in Oil, but easily in Water, and is of a pungent bitter Taste and a strong Smell: It powerfully brings down the Courses, cures the Suffocation of the Womb, expels the After-Birth, and helps to fetch away a dead Child. The Fumes of *Galbanum* are very prevalent against Hysterick Fits or Vapours, and is given in Substance from half a Scruple to half a Dram. A Plaister made of *Galbanum* is very properly and profitably apply'd to the Navel in Hysterick Fits or Vapours; or else the Navel may be anointed with the Oil in the same Cases. The *Galbanetum* of *Paracelsus* being an effectual Medicine in a Palsy and Cholick, is prepar'd after the following Manner: Take *Galbanum* one Pound, Oil of Turpentine half a Pound, Oil of Lavender two Ounces, dissolve and digest them in a Retort, with a sufficient Quantity of powder'd Lime, and keep the Liquor for Use. *Galbanum*, outwardly apply'd, resolves and discusses Tumours, upon which Account it is apply'd, by way of Plaister, to venereal Buboës, and helps to discuss all Sorts of schirrous Tumours.

Lemery. *Galbanum* is a Gum whereof we have two Sorts, the one in yellow Tears, or Drops, of a strong Flavour and unpleasant Smell, of a bitter Taste and a little acrid. The other is in a large fatty and glutinous Mass, full of Stalks and Drofs, and of a very stinking

Odour. Both Sorts flow by Incision from the Root of a Kind of Fennel-Giant, which grows in *Arabia*, about the Height of a Man; the Stalk is thick and full of Pith, the Leaves broad and large, resembling those of Parsley: The Flowers grow in Tufts, or Clusters, composed usually of five Leaves, made like a Rose at the End of the Cup; when the Flower is gone the Cup becomes a Fruit, consisting of two very large Seeds, that are oval, flat, and thin, like those we see come over in the *Galbanum*.

That which is in Drops, yellow, pure, fat, heavy, and not sticky, yet with some Branches or Bits of the *Ferula* in it, is to be chosen, which is not too dry or moist, and flames when burnt. It softens, dissolves, discusses, and yet extracts Things forth of the Flesh: It is chiefly used against Vapours, Fits of the Mother, and Obstructions of Liver, Spleen and Womb. It dissolves Tumours and Nodes, gouty Swellings and Pains, being apply'd Plaisterwise to the Parts afflicted.

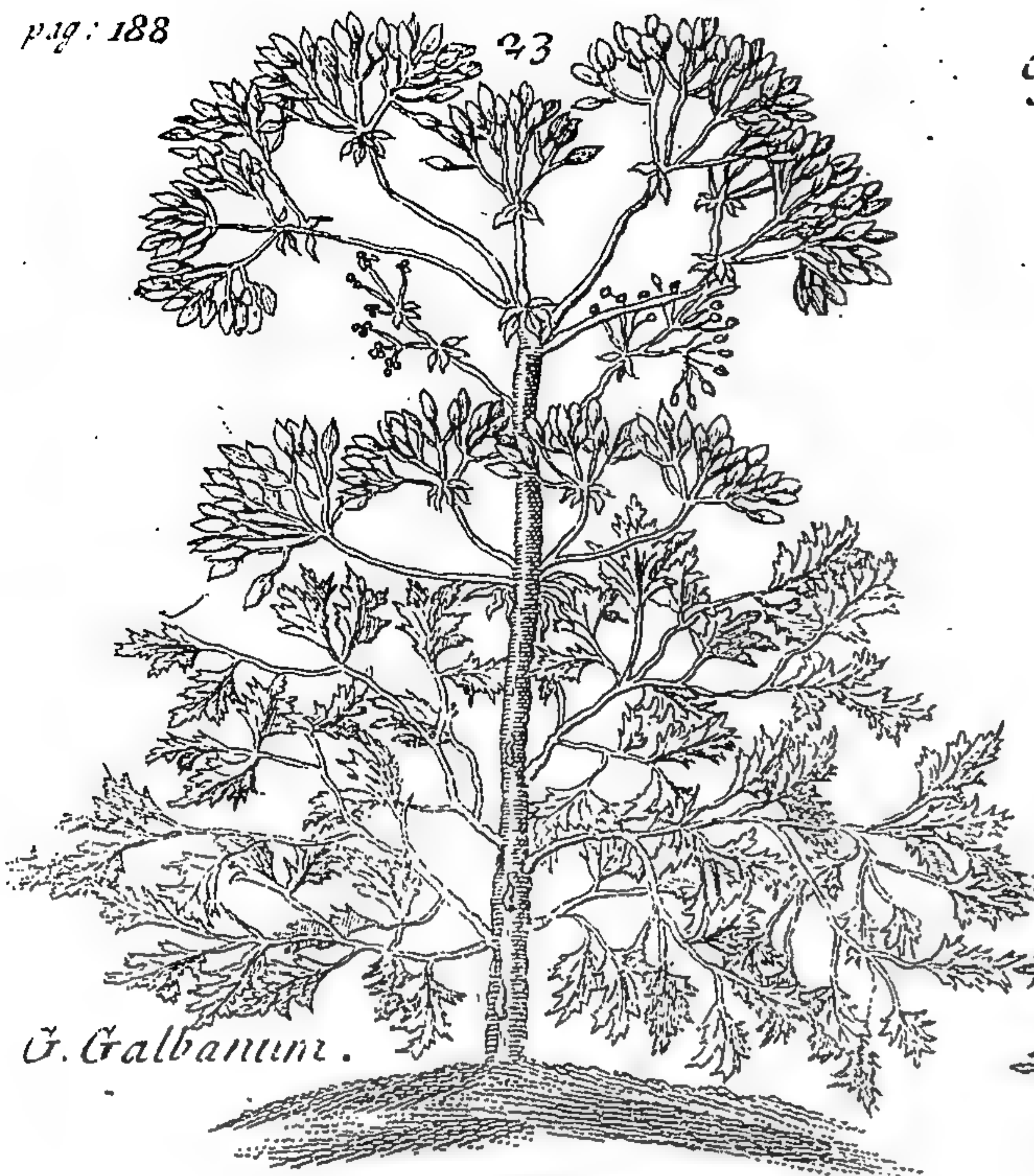
Galbanum is dissolv'd, as some other Gums are, in any Liquor, as Water, Vinegar, or Wine; dissolve it in the Liquor, strain and inspissate, and it is what is call'd *Galbanum Colatum*: Some hang it in a Cloth over the Vapour of a Bath, and so let it drop out; but others put it into hot Water, and cast off the Rubbish which swims at the Top. Oil of *Galbanum* is made by a Retort with Vinegar; the Tincture by Spirit of Wine acuated with Spirit of Nitre.

[*Galbanum* is a Gum Resin, which is got by Incision from the *Ferula fruticosa semper virens, foliis anisi, Galbanifera ex qua Galbanum officinarum*. Par. Bat. Prodr. 334. *Orcoselinum Africanum Galbaniferum frutescens Anisi folio*. Tourn. Inst. 319. *Orcoselinum Anisoides Arborescens Ligustici foliis & facie, flore luteo Capitis Bonæ spei*. Breyn. Prodr. 2. 79.

There are two other Species of the *Ferula*, which also yield a *Galbanum* no way distinguishable from the common Kind, these are the *Ferula Africana Galbanifera frutescens, Myrrhidis folio*. C. Commel. Hort. Amst. 11. pag. 115, and the *Ferula latiore folio*. Hist. Ox. 3. 309. But all the *Galbanum* we use is from the Species first named.]

24. Of Gum Sagapenum.

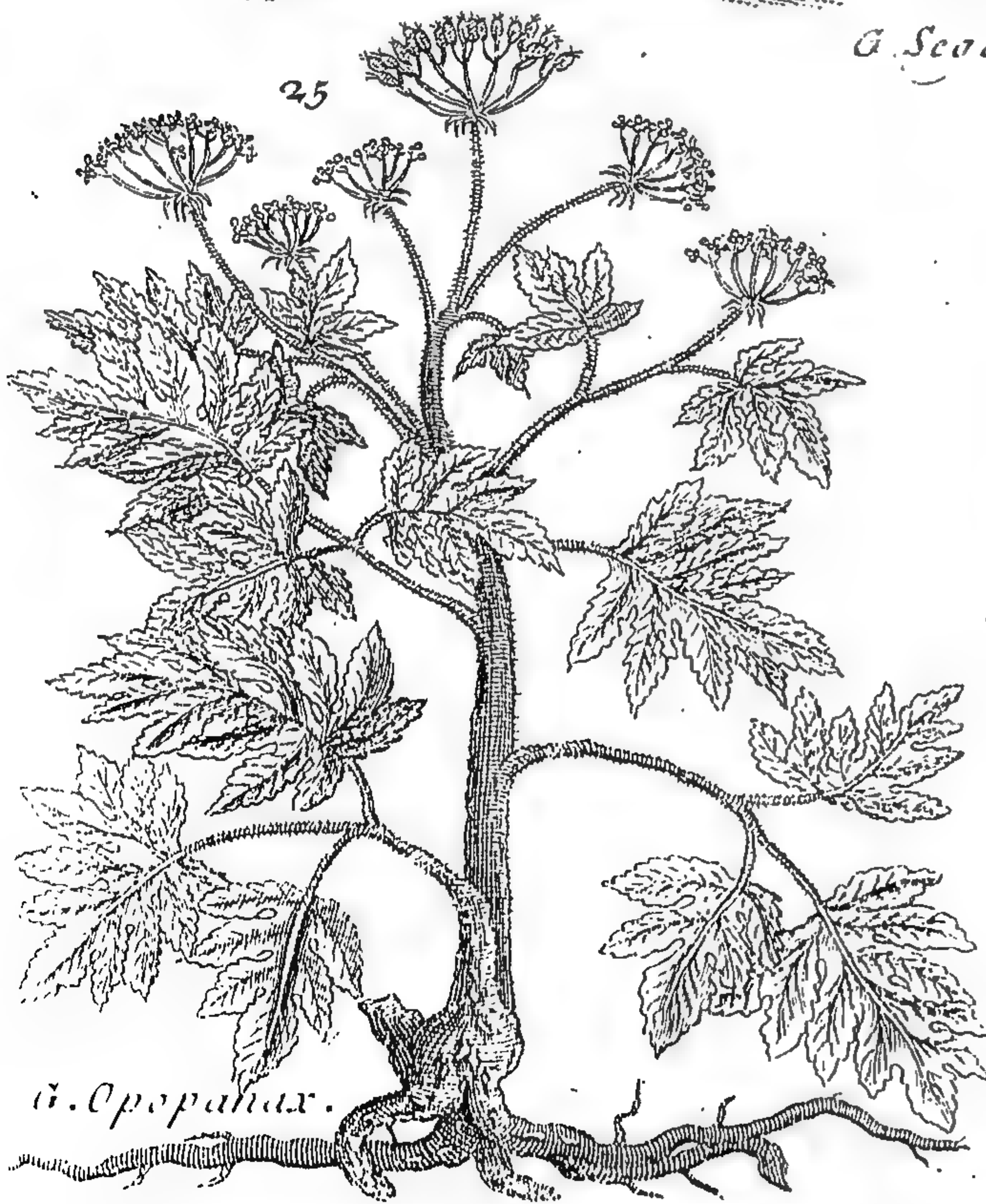
THE *Sagapenum*, likewise call'd *Serapinum*, because of its Smell, *Pomet.* that is almost like that of the Pine, and by the French, *Gum Seraphin*, flows from the Trunk of a Plant whose Leaves are very small, and the Seeds resembling those of *Galbanum*, except that they are less. It grows plentifully in *Persia*, *Media*, &c. from whence the Gum is transported



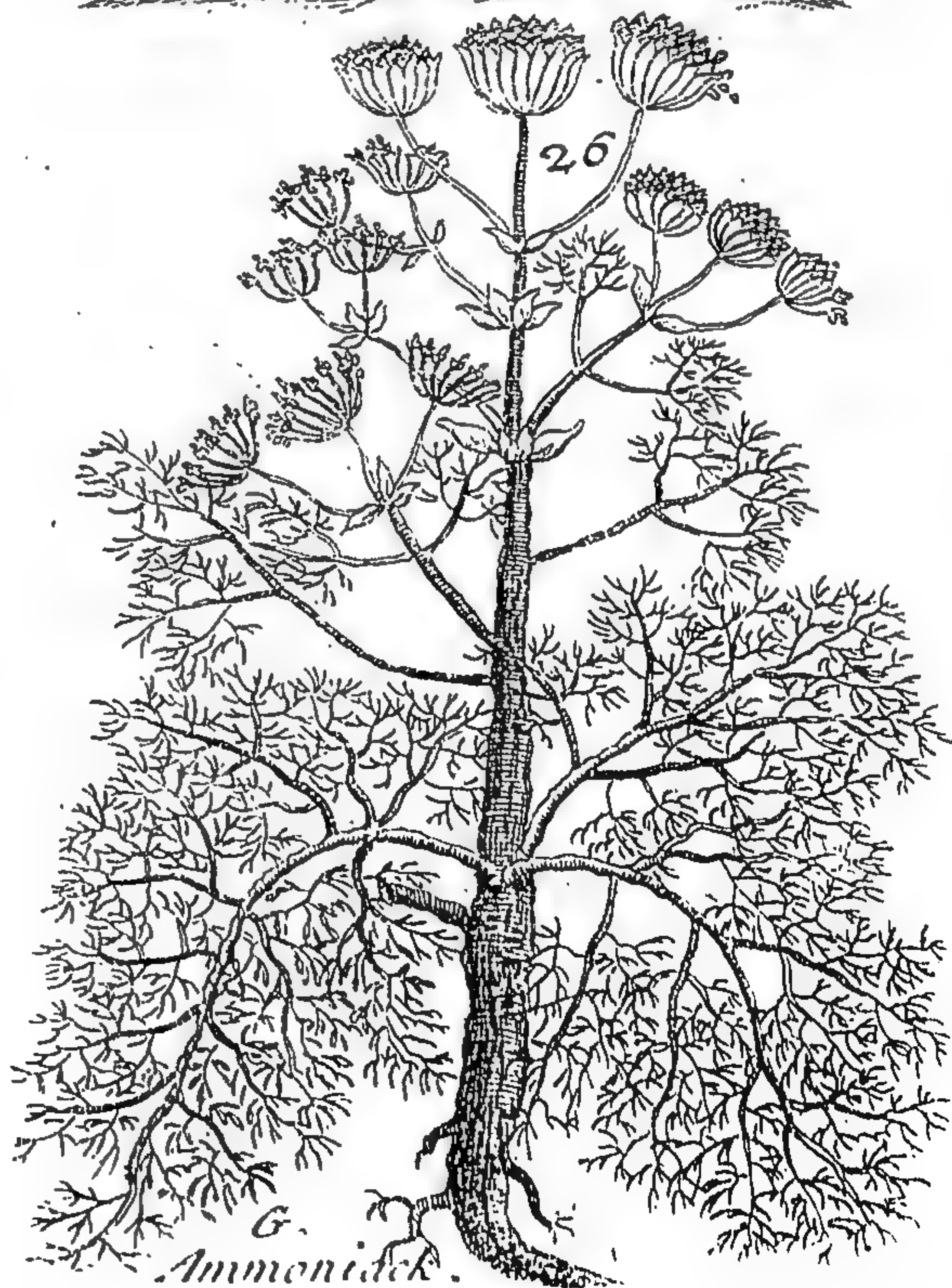
G. Galbanum.



G. Scapem.



G. Opopanax.



G. Ammoniac.

to us and all other Parts of *Europe*. Chuse your *Sagapenum* in fine Tears, clear and transparent, of a strong Smell like that of the Pine; outwardly of a yellowish or reddish Colour, inwardly the whitest and least full of Dirt and Filth that can be. This enters into several *Galenical* Compositions. Mr. *Wormes*, a *Danish* Physician, says, in a Book of his, that it is admirable for the Falling Sickneſs and Palsy; I know, by my own Experience, that it is excellent for Asthmas, taken about the Bigness of a Pea at Bed-time, and the same Quantity in the Morning rising.

This Gum is attractive, drawing forth Splinters, Thorns, &c. gotten into the Flesh; it has, as *Hoffman* fancies, a peculiar magnetick Quality, *qua intestina dislocata in Iliaca Passione ex Hernia, in pristinum reducit locum*; for which Reason he made it the chief Ingredient in the magnetick Emplaster. It is also used in Disaffections of the Womb, and being apply'd, it cures the Sty in the Eye-Lid. It purges Water and all gross Humours from the Stomach, Guts, Womb, Reins, Head, Nerves, &c. Is good in Dropsies, Convulsions, Palsies, Numbness, Weakness and Obstructions; besides which, it is excellent in Pleurifies, to ease Pains and dissolve hard Tumours of the Spleen. Dose from one Dram to two Drams; but because it is apt to disturb the Stomach, it is corrected with Ginger, Cinnamon and Mastich.

Sagapenum, Serapinum, Sacoponium, Lemery. is a Gum reddish without and whitish within; of a strong unpleasant Smell, of an acrid Taste, that flows by Incision from a Sort of Plant that is of the Nature of Fennel. Chuse *Sagapenum* in Drops, that are pure, neat and bright: It yields abundance of Oil and volatile Salt, and will dissolve in Wine, Vinegar, and in Juice of Plants; but had better be reduced to Powder when used in Compositions that require its Dissolution. This Gum is incisive, penetrating, aperitive, a little purgative, sudorifick; opens Obstructions of the Spleen, Mesentery and Liver; assists Respiration, and strengthens the Nerves; is good in Epilepsy, Palsy and Asthma; to provoke Urine and the Terms, and to suppress Vapours. Dose ten or sixteen Grains in Pills. There is a Spirit and Oil made from it, as from *Galbanum*: The acid Spirit has all the Virtues of the Gum, but with this Advantage, that it is more penetrating; for which Reason it is successfully given against Obstructions of the Womb, &c. The Oil is good for the same Purposes, but is mostly used against Vapours, being smell'd to or anointed upon the Nostrils: It is seldom given inwardly, except in Fits of the Mother, to four or five Drops in some proper Vehicle.

[The Plant which produces the *Sagapenum* is another Species of the *Ferula*; it is the *Sagapenum Chemel.* Plant. As. 190. Rai. Hist. 1. 1844. The Gum is brought to us from *Alexandria*, and is purgative, attenuant and aperitive. The Dose is from twenty Grains to a Dram.

25. Of Gum Opopanax.

OPOPANAX is a Gum that flows, according to some Authors, from *Pomet.* a ferulaceous Plant, call'd *Panax Heracleum*, or *Hercules's All-heal*. It is brought us from the *Streights*, and sometimes from the *East-Indies*, though great Quantities grow in *Macedon, Achaia*, and other Parts of *Greece*. The Leaves of the Plant are almost like those of the Fig-Tree, divided, or partition'd, into five Parts; the Stalk is very high and woolly, producing at the Top a great Tassel, or Bunch, with yellow Flowers; and after that a Seed, that is burning upon the Tongue and of a strong Smell; the Roots are white, a little bitter, and cover'd with a pretty thick Bark. From the Cutting of this Bark the *Opopanax* flows liquid, and white at first; but when it is afterwards dry'd it becomes, by degrees, of a golden Colour on its Surface. There are three Sorts brought from *Marseilles*, viz. that in Tears, that in the Mass, or Lump, and the adulterated or flat Kind.

The first Sort ought to be chosen in fine Drops, white within and of a gold Colour without; of a strong Scent and an unpleasant bitter Taste, the dryest and least full of Dirt that can be got. The second Sort, that is in the Lump, ought to be as full of Tears, and as near the Colour and Smell of the first as possible. The flat Sort is that call'd the Companies *Opopanax*, and which several sell for that in Tears, though it is easy to know the Difference; because the true is in little round Drops, and the flat Sort of the Breadth and Thickness of one's Thumb; this ought to be entirely rejected, for it is a Counterfeit, made of a Mixture of *Galbanum* and another cheap Gum, which need not be mention'd here. *Opopanax* dissolves Wind, purges Flegm, which is thick and tough, from the remote Parts, as from the Womb, Joints, &c. opens the Breast and Lungs, softens Tumours, and, taken in at the Mouth by Fumes, cures Catarrhs, and the falling down of the *Uvula*. It is reckon'd an excellent Thing against an old Cough, Sharpness of Humours, Difficulty of Breathing; and being drank an Hour before the Fit of an Ague, it takes away the cold Fit, especially if the Stomach and Back-Bone be also anointed with the Oil thereof, or volatile

volatile Spirit, both of which possess all the Virtues of the *Gum*.

This *Gum*, when new, is of an insupportable strong Smell; but that, as well as its natural Whiteness, wears off in keeping.

Oppanax is a yellow *Gum* that is *Lemery*. drawn by Incision from the Stalk and Root of a *Spondylium*, that grows in *Macedon*, and other Parts of *Greece*. This Plant is call'd *Spondylium majus*, *sive panax Heracleus quibusdam*; the Great *Spondylium*; or by some, *Hercules's All-heal*, according to *J. Bauhinus*, *Ray*, and *Tournefort*: The Stalk is high and woolly; the Leaves like those of Figs, rough to the Touch, divided into five Parts; the Flowers grow in Clusters upon the Tops of the Branches; they are small, white, composed each of five unequal Leaves, disposed like the Flower-de-lis: When these are gone they are follow'd by Seeds join'd two and two together, flat, large, oval, hollow, or cut at the Top, strip'd along the Back, of a yellowish Colour, a strong Smell, and poignant Taste; the Root is long, white, full of Juice, odoriferous; a little bitter to the Taste, cover'd with a thick Bark: The *Opopanax* drops from the said Root in a white Liquor, which thickens as it dries, and grows yellow upon the out Parts. Chuse it fresh, clean and pure, in large Drops, that are yellow without and white within, fat, and pretty brittle, of a bitter Taste, and a strong unpleasant Smell; it affords a great deal of Oil and volatile Salt, is emollient, attenuating, digesting, expels Wind; is proper in hysterick Cases, and to resist Putrefaction.

[The Plant which produces the *Opopanax*, is the *Panax Pastinacæ folio*. C. B. Pin. 156. *Pastinaca Sylvestris altissima*. Tourn. Inst. 319. *Panax Heracleum*. Hist. Ox. 3. 315. It flows naturally, and without Incision: It is at first of a yellowish Colour, but turns reddish by Age; it is seldom prescribed alone, but is an Ingredient in many Compositions.

26. Of Ammoniacum, or Gum Ammoniack.

Pomet. THIS is a *Gum* that flows in white Tears, from the cut Branches or Roots of a Plant of the ferulaceous Kind, that grows in abundance in the Sands of *Libya*, especially about that Place where sometime the Temple of *Jupiter Ammon* stood; from whence it has its Name. This *Gum* is brought us in Tears, or else in large Lumps, wherein are a great many white Drops or Tears, as well on the out-parts as within. It is of a tolerable grate-

ful Smell, inclining towards that of *Opopanax*. Chuse this *Gum* in Tears, in the finest, dry, white, round Drops, of a bitter Taste, unpleasant enough; and that in the Mass or Lump, as full of Tears and as clean as possible. It is used in several topical Medicines; and *Monfieur de Meurve*, in his *Pharmaceutick Dictionary*, attributes great Virtues to it, whereto the Reader may have Recourse. It is emollient, and wonderfully discussive, admirable in Asthmas, and used ordinarily to discuss hard Tumours in Womens Breasts with great Success: An Extract of it takes off Roughness from the Windpipe, thickens thin and sharp Rheums, which fall down upon the Lungs; and is used in Pectorals for the same Purposes. There is, besides this, an Oil, volatile Salt, and Spirit of *Ammoniacum*, according to *Lemery*, in which Processes you have not much Difference from those of *Charas*, only that the last requires the Retort to hold eight Times the Quantity; *Lemery* but three Times: *Lemery* also says, there is no need of adding *Alcalies* in Rectification, because they rather hurt and spoil these Kinds of Spirits than make them better.

This *Gum* is purified by dissolving it in Vinegar; then straining it through a Cloth, and thickening. The Spirit of *Ammoniacum* opens Obstructions, and is used with Success in the Scurvy, Dropsy, and the Jaundice; as also for Stoppage of Urine; but particularly in Diseases of the Womb: Dose from eight Drops to twenty in Rhenish Wine, or the like. The Oil is given for the same Purposes, from two Drops to six, with double refin'd Sugar, &c.

Ammoniacum Gummi, vel Gummi Hammoniacum, sive Gutta Ammoniaca, Lemery. Gum *Ammoniack*, is a yellow *Gum* on the Outside, and white within, of an unpleasant Smell, almost like *Galbanum*, inclining to a bitter Taste. It flows in white Tears from the Branches and Roots that are cut off a Sort of Fennel call'd *Ferula Ammonifera*, or the Fennel, bearing *Ammoniack*, that grows plentifully in the Deserts of *Lybia*, especially about that Part where the Temple and Oracle of *Jupiter Ammon* stood. Some call this Plant *Metopion*, from being very porous. The best *Gum* is in fine neat Tears, almost like *Olibanum*, dry, white, brittle. It softens before the Fire, and is easy to reduce to Powder, of a little bitterish Taste, and an unpleasant Smell. The Druggists sell it also in the Mass or Lump, loaded with a great deal of Filth; and this serves to make Plaisters of. This *Gum* yields plenty of essential or volatile Oil, some Flegm and Earth. It attenuates, resolves, digests, is aperitive, proper for Hardness of the Spleen, Liver, and Mesentery, opens Obstructions,

tions, provokes Womens Courses, and is used both internally and externally.

[The Plant which produces the *Gum Ammoniacum* is not certainly known; it is supposed to be another Species of the *Ferula*, and many have thought the *Galbanum Sagapenum* and this *Gum* to be all produced by the same Plant, growing in different Climates; but as we now know that the *Sagapenum* and *Galbanum* are produced by different Plants, it wou'd be absurd to believe, that the *Ammoniacum*, which is much more different from either, than they are from each other, shou'd be produced by the Plant from which we have either of them.

It is purgative in a small Degree, but is a powerful Resolvent, and excellent in Obstructions of the Viscera. The Dose is from a Scruple to half a Dram.]

27. Of Indian Dragon's Blood.

Pomet. THE *Indian Dragon's Blood* is a Gum that distils or drops from the Trunks of several Trees, whose Leaves are like Sword Blades, of half a Foot long, and of a green Colour; at the Bottom of which grow round Fruit, of the Size of our Cherries, that are yellow at first, afterwards red, and of a beautiful blue when ripe; in which, having taken off the first or outward Skin, appears a Sort of Dragon, which has given Occasion to have the Drug nam'd, though very improperly, *Dragon's Blood*, since it is the Gum of a Tree, and not the Blood of any Creature, as some believe still.

The Inhabitants of the Country cut the Trunks of the Trees, and there presently flows a fluid Liquor, that is as red as Blood; which hardens as soon as the Sun shines on it, and forms itself into little brittle Tears or Crumbs, of a very fine red Colour; and when the first and best Sort is fallen, there drops another. This is sometimes brought us wrapp'd up in the Leaves of the same Tree, in the Figure and Size of a Pigeon's Egg; but commonly it comes folded in the same Leaves, of the Length and Thickness of one's Little Finger, and sometimes also of the Size and Shape of the Sebesten. Chuse *Dragon's Blood* in little Tears, that are clear, transparent, and very brittle. The finest, or first Sort, is very scarce in *France*; the best to be met withal at present is what comes in little Reeds, which ought to be dry and easy to break, and that when rubb'd on Paper, or hot Glass, will leave behind it a beautiful red Stain; upon which Account, antiently, they used it to paint Glass red. There is some brought likewise in the Mass, which is like that in Tears, but the fine is difficult to be met with.

Hoffman thinks that which is in Drops, and is the very finest Sort, is made from the coarser, by dissolving of it, depurating it from its Fæces, and inspissating; and that those Drops are first extracted with Spirit of Wine, because, being infused or digested in Spirit of Wine, it yields a delicate, blood-red Colour. It is good to stop all Sorts of Fluxes, whether of Flood or Humours, whether Defluxions from the superior Parts, or Fluxes of the Bowels or Womb, the Bloody-Flux, Whites, and Gonorrhœa, being inwardly given, from half a Dram to a Dram, mix'd with Conserve of red Roses, or some other proper Vehicle. It is good against Spitting of Blood, and stops Catarrhs, being of a drying, binding, and repelling Property. Being finely ground, it is used by Goldsmiths for Enamel, by Jewellers to set Foils under their precious Stones, for their greater Lustre. By Painters, Varnishers, and Japanners, to make Varnish and Japan, by mixing it with common or Shell-Lac, or Seed-Lac Varnish.

28. Of Dragon's Blood of the Canaries.

Pomet. THIS *Dragon's Blood* is likewise a Gum that flows from the Trunk and large Branches of two different Trees; after having been cut, the one of which has a Leaf like the Pear-Tree, but a little longer, and the Flowers bear a Resemblance to Tags, at the End of Laces, of a very fine red. The Leaves of the other come nearer to the Cherry, and the Fruit is yellow, of the Bigness of a Hen's Egg, in which is found a Nut, of the Shape of Nutmeg, which contains a Kernel, of the same Figure and Colour.

These Trees grow plentifully in the *Canaries*, especially in the Island of *Porto Santo*; likewise in the Isle of *St. Laurence*, where these Trees are call'd *Rha*, that is to say *Blood*, and their Fruit *Mafontra*, or *Voafontra*. The *Natives* of *Madagascar* make an Oil of the Kernels of this Fruit, which serves them to cure Burns, Erysipelas's, and other Diseases that proceed from Heat. The Inhabitants of these Islands cut the Trunks of these Trees, from whence drops a red Gum, which they make into Balls, of different Sizes. But this Sort of *Dragon's Blood*, though good, is always so full of Dirt, that no Body cares to meddle with it. Some soften this *Dragon's Blood* by means of hot Water, and so put it into Reeds, like that which comes from *India*. The Inhabitants sometimes melt this Gum, and put little white light Sticks into it: and when they are cover'd with Gum, they take them out and dry them, to clean the Teeth withal; and these are usually

usually brought over by the *East-India Company*. It is further to be observ'd, that the Reason why the Inhabitants call this Gum *Dragon's Blood*, is, because the Tree that bears it is call'd the *Dragon-Tree*; which, according to *Clusius*, appears to be a Kind of Date-Tree, having a very thick Trunk, about five Yards high, and sending forth several Branches or Boughs that are naked, or bare of Leaves. The Fruit is of a round spherical Figure, of a yellow Colour, and about the third Part of an Inch thick, containing a very hard Kernel, like a Date. The Trunk of the Tree is very rough, and full of Clefts and Chops, pouring forth a Liquor, during the Heat of the *Dog-Days*, which afterwards thickens or congeals into red colour'd Drops or Tears, call'd *Dragon's Blood*; which, though it hardly dissolves in aqueous or oily Liquors, yet ought to be reckon'd among the Gums and Rosins.

29. Of False or Counterfeit Dragon's Blood.

Pomet. THE *Dutch* now bring us a Sort of *Dragon's Blood* which is in flat

Cakes, of a very deep red, and shining as well on the Outside as the Inside, pretty brittle, which being broke, is of a very fine red Colour; and when burnt, smells like *Spanish Wax*. This *Dragon's Blood* is nothing else but a Mixture of the true *Dragon's Blood* with two other Gums, which I shall not mention here; and this I am the more sure of, as I have made the Composition myself, and have of it now by me. We have brought from *Holland*, besides this, another Sort of *Dragon's Blood*, made of Gum-Arabick, or that of *Senega*, with a Tincture or Dye of the *Fernambouc Brazil*; therefore I wou'd advise every Body not to make Use of either of these two Sorts of *Dragon's Blood*, as they are only Mixtures of other Gums, which have neither the Smell, Colour, nor any of the Virtues of the true *Dragon's Blood*.

Sanguis Draconis, or *Dragon's Blood*, *Lemery.* is a gummous Juice, congeal'd or coagulated, dry, brittle, and of a red Colour like Blood, drawn by the Incision of a large Tree in the *Indies*, call'd by *Clusius*, *Draco Arbor*, or the *Dragon-Tree*; It is of the Height of the Pine, thick and furnish'd with several Branches. The Wood is very hard, cover'd with a Bark of a tolerable Thickness, and soft. The Leaves are large, shap'd something like those of the *Flower-de-lis*, being of the Length and Figure of a Sword Blade, and are always green. The Fruit grows in Bunches, the Size of a small Cherry, round, yellow at the Beginning, red af-

terwards; and when they are ripe, of a fine blue Colour, and a little acid to the Taste. *Monard*, and several other Authors, write, that when the Skin is taken off from this Fruit, there appears underneath the Figure of a Dragon, as it is represented by the Painters, with Wings expanded, a slender Neck, a hairy or bristled Back, a long Tail, and Feet arm'd with Talons. They pretend that this Figure gave Name to the Tree; but I believe this Circumstance fabulous, because I never knew it confirm'd by any Traveller.

The finest and best *Dragon's Blood* is that which drops first from the Tree in little Tears, that are clear, transparent, and easy to break, of a resplendent red; but this is very scarce, and not brought us in War-time; so we are forced to content ourselves with the second Sort, [describ'd already by *Pomet*]. The true *Dragon's Blood* yields a sufficient Quantity of Oil, and a little essential Salt. It is very astringent, agglutinative, drying, stops Hemorrhages, Fluxes of the Belly, deterges and consolidates Wounds, strengthens luxated Joints, and is proper for Contusions, used both inwardly and outwardly.

[There appears great Contradictions among good Authors about the Tree which produces the *Sanguis Draconis*; but I believe they may all be reconcil'd, by allowing, as it certainly is so, that we have three different Kinds of this Drug sold in the Shops, beside the counterfeit one describ'd by our Author.

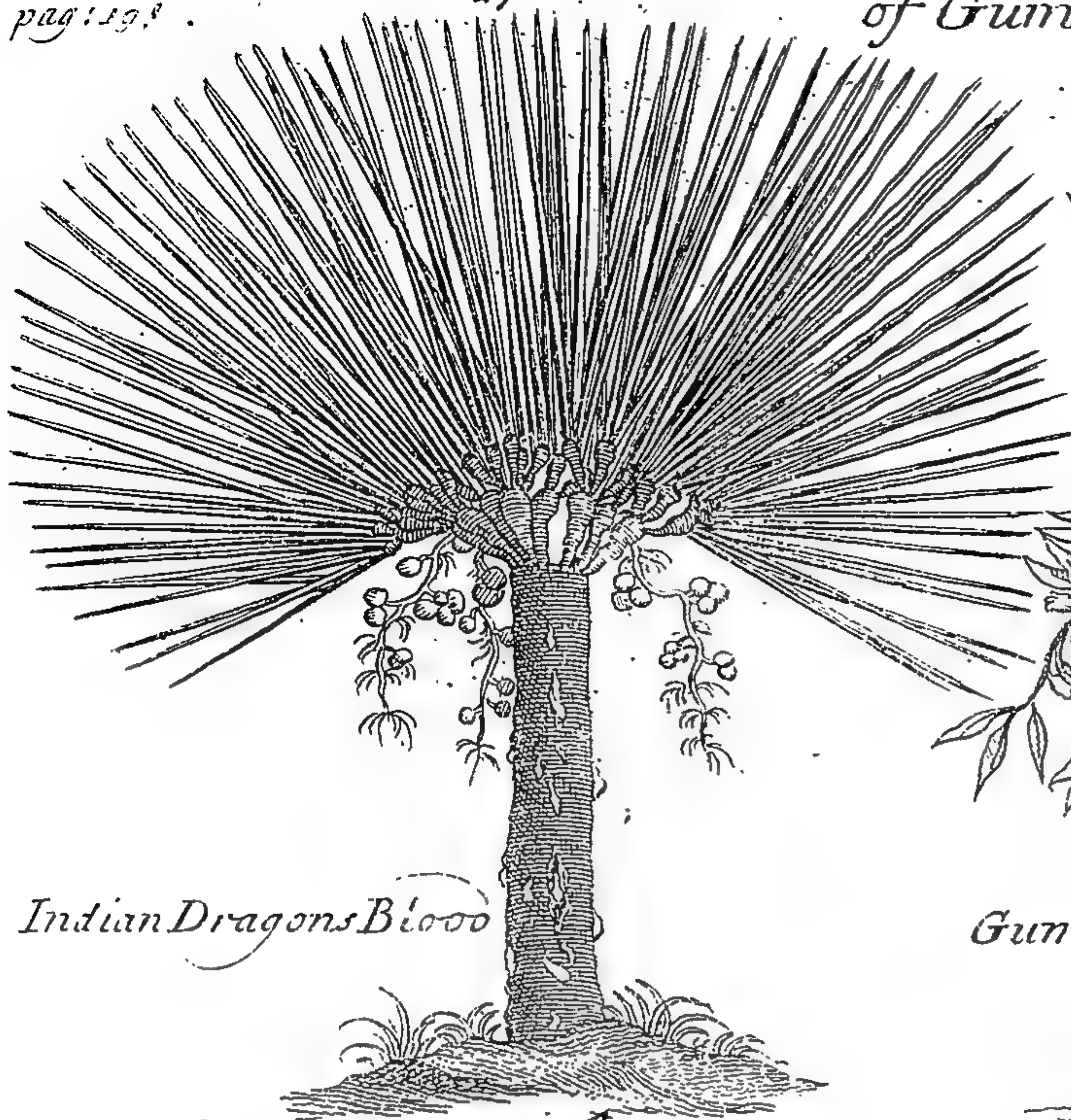
The first, or *Indian Dragon's Blood*, is produced by the *Draco Arbor*. Ger. 1339. Park. 1531. *Palma foliis longissimis Pendulis absque ullo Pedunculo ex caudice glabro enatis*. Boer. Ind. alt. 2. 169.

The second, or *Canary Dragon's Blood*, by the *Draco Arbor Indica Siliquosa Populi folio sive Angsava Javanica*, Comm. Hort. Amst. 1. 213. Faq. 109. Ras. Dendr. 113. And

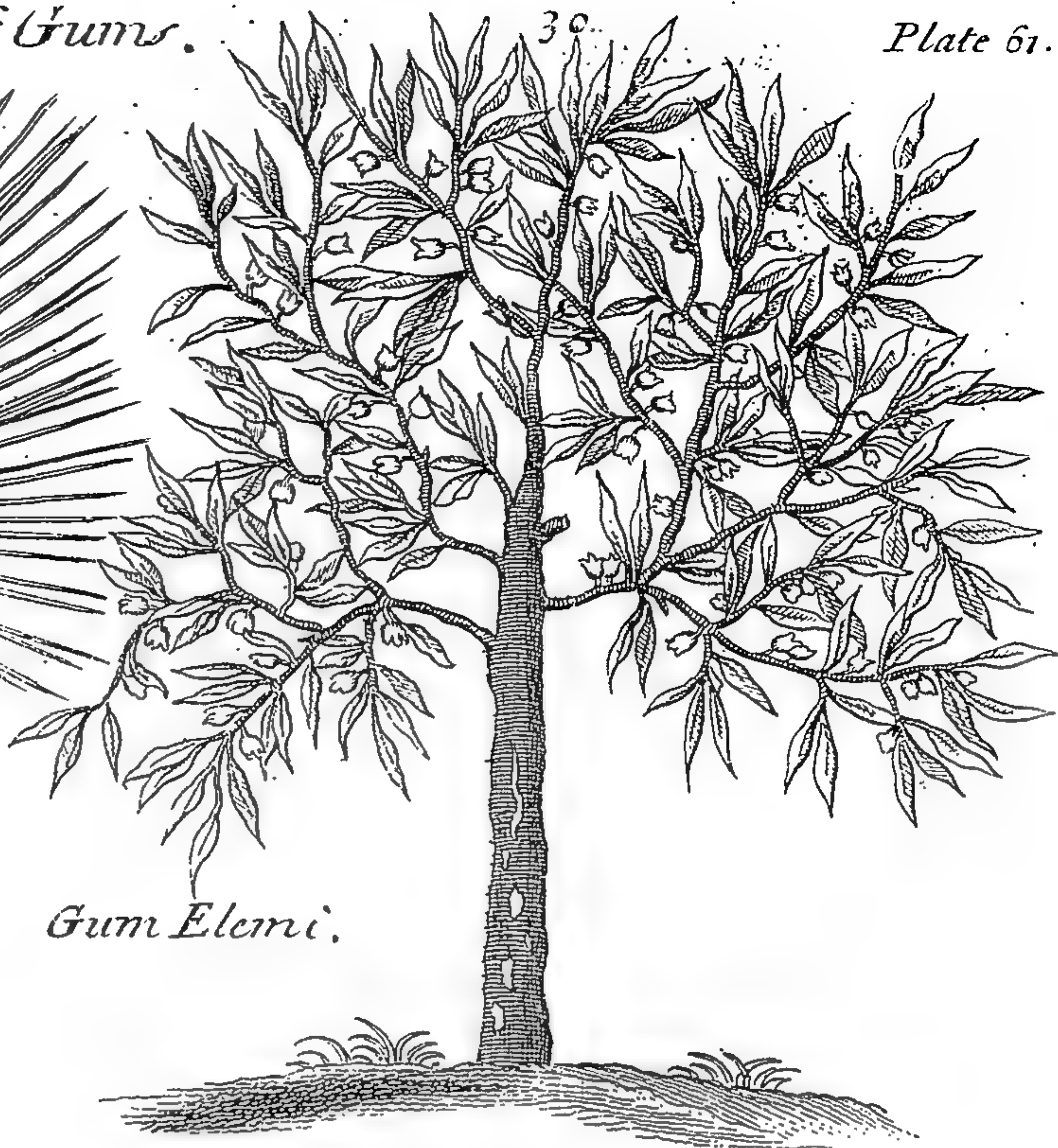
The third, or *Vernish Dragon's Blood*, by the *Arundo fureta Indiae Orientalis Sanguinem Draconis manans*. Hist. Ox. 3. 220. Raii. Hist. 3. 615. It is with this Sort that the fine red *Chinese Vernish* is made. And to these we may add a fourth, produced by another Species of Palm, describ'd by Dr. *Sherard*, who calls it *Palma foliis & caudice undique Spinis longis acutissimis nigris Armata*: And this is the Kind which *Keempfer* mentions, and calls *Dijerengang sive Sanguis Draconis ex fructibus Palmae confusae spinosae elicitis*. Keemp. Amoen. Exot. 552. But the *Dragon's Blood* this yields is seldom brought to us.

The fictitious Kind mention'd by our Author is never given inwardly, but is of great Use to Painters.

The



Indian Dragons Blood



Gum Elemi.

28



Indian Dragons Blood.



The Story of the Dragon in the Fruit of the Tree is wholly fabulous.]

30. Of Gum Elemi.

Pomet. **G**UM Elemi is a white Rosin, inclining to greenish, that flows by Incision from the Trunk and large Branches of a Tree of a moderate Height, whose Leaves are long and narrow, of a whitish green, silver'd on both Sides; with a red Flower that rises from a little Cup, of the Colour of the Leaves; the Fruit is of the Colour and Shape of our Olives; which is the Reason why these Trees are call'd *Wild Olive-Trees*. There are abundance of these Trees in *Æthiopia* and *Arabia Felix*, from whence this Gum is brought us in Cakes of two or three Pounds Weight a-piece, wrapp'd up in Leaves of the *Indian Cannacorus*; whence it is call'd *Gum Elemi* in Reeds. Chuse such as is dry, nevertheless soft, of a white Colour, tending to green, the Smell sweet and pleasant enough; and take Care it be not the common Incense, wash'd with Oil of Spike, as happens too often; which may be easily found out, as well by its great Whiteness, as its ill Smell, inclining to Turpentine; and that such is always wrapp'd up in the Leaves which are found among the Clove-Wood.

This Rosin adulterated is call'd by those who make it, the *American Gum Elemi*, that Title serving them as a good Pretence to cover their Knavery. The true *Gum Elemi* we have from *Holland* or *Marseilles*, is a natural Balsam for curing of Wounds, for which Reason it is very properly made Use of in *Arceus's* Leniment. There is a large Tree found in the *American-Islands*, the Wood whereof is white, and the Leaves like those of the Bay, but that they are a great deal larger: This Tree is so loaded with Rosin, that it yields to fifty Pounds Weight of white Gum, altogether like the common Incense, only that it is not so strong smelling. And as this Rosin is but as yet little known among the Merchants, though common among us, they often sell it under different Names, sometimes calling it *Gum Elemi*, sometimes *Gum Animæ*, and sometimes *Tacamahaca*; but it ought rather to be call'd *American Incense*, in that the Smell and Shape resemble it, and it is not easy to find the Difference. The Gum Chibou is the same with this, and the large Leaves it comes wrapt over in, are those of the Cachibou, which the *Americans* use on many such Occasions.

This Rosin comes in Barrels of different Weight. We sell, besides, two other Sorts of *Gum Elemi*; one whereof is like common Rosin, but has a sweet aromack Smell, and is cover'd with Leaves that cover the Clove-Wood. The

other Sort of *Gum Elemi*, is of an Ash-Colour, inclining to be brown, and in great Pieces that are dry and brittle: But as it is impossible to learn exactly what these are, I shall say nothing further, but that I believe that they are nothing but impure or foul *Gum Elemi*, which may have their good Qualities recover'd, by refining over the Fire, which I dare not, however, yet affirm, not being certain of it.

Gummi Elemi, sive, Resina Elemi, Lemery. is a Kind of gummy and resinous Substance; for it dissolves in Oil, and is inflammable. There are two Kinds of it, viz. the true Gum, call'd also, the *Æthiopian*; and the bastard, or spurious, call'd the *American Gum Elemi*. The true, or *Æthiopian Gum Elemi*, is a Rosin from a whitish Colour, a little inclining to a green, moist and tough, run together in Lumps or Clods of a long and round Shape, for the most Part inflammable, of a pleasant Taste, and smelling something like Fennel. Those Lumps are brought over to us wrapp'd up in a large Leaf, appearing to be a Kind of *Indian Reed*. Bastard or *American Gum Elemi*, is a Sort of white Rosin, not much unlike *Pine Rosin*, inflammable, and of a strong Smell, flowing plentifully out of a certain Kind of Tree, bearing Leaves like the Bay-Tree, call'd *Cleban*. *Parkinson* saith it is a yellowish Gum, clear and transparent, which being broken, shews more white and gummy within, quickly taking Fire, and melting thereat, and of a Kind of quick Scent and Taste. If it is like *Ammoniacum*, or *Gum-Arabick*, or is black, it is good for little or nothing. This Gum is of singular Use in all Wounds and Fractures of the Head and Skull, and to be mix'd with Leniments and Balsams for that Purpose. It is also emollient, digestive, and is anodyne, discusses Tumours, and opens Obstructions. The Spirit, Oil, and Balsam are distill'd by the Retort in Sand, as hath been taught. The acid Spirit, which contains the volatile Salt of the mix'd, suppresses Vapours and Fits of the Mother, opens the Passages of the Urine, tempers the Heat thereof, prevents breeding of the Stone, and is a good Pectoral. The Oil and Balsam are accounted, by some, specific in the Gout, Palsy, and Convulsions. They cure Ulcers, chiefly of the Fundament, heal and cleanse all Wounds, &c. as well old as new, easing Pain, resolving Contusions, and discussing Swellings.

[The first Kind of *Gum Elemi* mentioned by our Authors, is the *Gum Elemi Legitimum Æthiopicum*. Geoff. Tract. 357, which was once common among us, but the Quantity and Cheapness of that brought from *America*, has quite banish'd it now from the Shops, so that it is no where to be found, and few Druggists know that

there ever was any other *Gum Elemi* than that which they now sell, which is the natural Drop-pings of the *Arbor Brasiliensis Gummi Elemi simile fundens foliis pinnatis flosculis verticillatis, fructu Olivæ figura et magnitudine.* Rai. Hist. 2. 1546. *Prunifera fago similis Arbor Gummi Elemi fundens figura et magnitudine Olivæ ex Insulis Barbadosi.* Pluk. Alm. 306. This is a very common Tree almost all over the *West-Indies*.

31. Of Gum Tacamahaca.

Pomet. **G**UM *Tacamahaca* is a resinous, liquid and transparent Gum, that flows from the Trunks of large thick Trees, that grow plentifully in *New Spain* and *Madagascar*, where they are call'd *Haramé*; they are pretty like our Poplars. These Trees are furnish'd with green Leaves, almost like those of the *Box-Tree*; after which comes red Fruit, of the Bigness of our Walnuts, in which is contain'd a fragrant Balsamick Rosin. The Natives cut the Trunks of these Trees, whence distils a white crystalline Liquor, of an agreeable Smell, that hardens sometime after it is fallen, and that serves for the Cure of cold Humours and to abate the Tooth-Ach, but they principally use it to caulk Vessels and Ships with, and the Wood serves for Planks.

The Inhabitants of *St. Laurence* have a Custom to put the first that falls from the Tree, without Incision, into little Shells cut in two, which they cover with a great Leaf, like a Sort of Palm Leaf; and that is what some Authors mean, when they speak of *Gum Tacamahaca Sublimis*, which ought to be dry, reddish, transparent, of a strong Smell, inclining to that of Lavender, of a Taste somewhat bitterish; this Kind is what we call *Shell Tacamahac*. That which falls from the Tree by cutting, is what we have brought in the Mass or Lump, and sometimes in Tears, in Figure resembling *Indian Frankincense*, which is to be chosen as full of white Drops, clean, dry, and as near the Smell of the former as can be got. It comes near the Virtues of the former, for which Reason it is used to put in Plaisters. It is very good to soften Tumours, and ease all Manner of Pains in the Head, Nerves, Joints and Womb. It is inwardly given from half a Dram to a Dram against Vapours, but most commonly against Pains, for which it is so famous amongst the *Indians*, that they use it to all Pains whatsoever, it not attended with any great Inflammation.

Tacamahaca, vel Tacamau, is a *Lemury*. Kind of hard, clear, fragrant Rosin, that is drawn by Incision from the Trunk of a great, thick, unknown Tree; call'd by *Parlinsou* and *Ray*, *Tacamahaca*; by *J. Bauhinus*, *Tacamahaca Populo similis fructu colore Pæoniæ*;

or that like the Poplar Tree, with Fruit the Colour of the Peony. It resembles much the Poplar Tree; the Leaves are small and indented; the Fruit is of the Bigness of a Nut, of a red Colour, resinous, odoriferous, and contains a Stone almost like that of the Peach. This Tree grows plentifully in *New-Spain*, and several Parts of the *West-Indies*; the Gum is gather'd from the Tree after wounding.

We have two Kinds of it, one of which is brought over in Shells, that is soft and whitish, of a very pleasant fragrant Smell; the other in Lumps, and comes in Chests, which is nothing near so good, but for the most Part is very foul and droffy: Both yield a deal of exalted Oil and volatile Salt. The *Gum Tacamahaca* is digestive, resolute, neurotick, anodyne, cephalick, drying, being apply'd externally. There is an acid Spirit, Oil and Tincture made from this Gum, which open Obstructions of the Womb and Mesentery; are anodyne and stomachick, taking a few Drops in any generous Liquor; or the Oil is good externally to smell to, and to anoint old running Ulcers with, to cleanse and heal them, as well as to discuss hard Knots and Tumours.

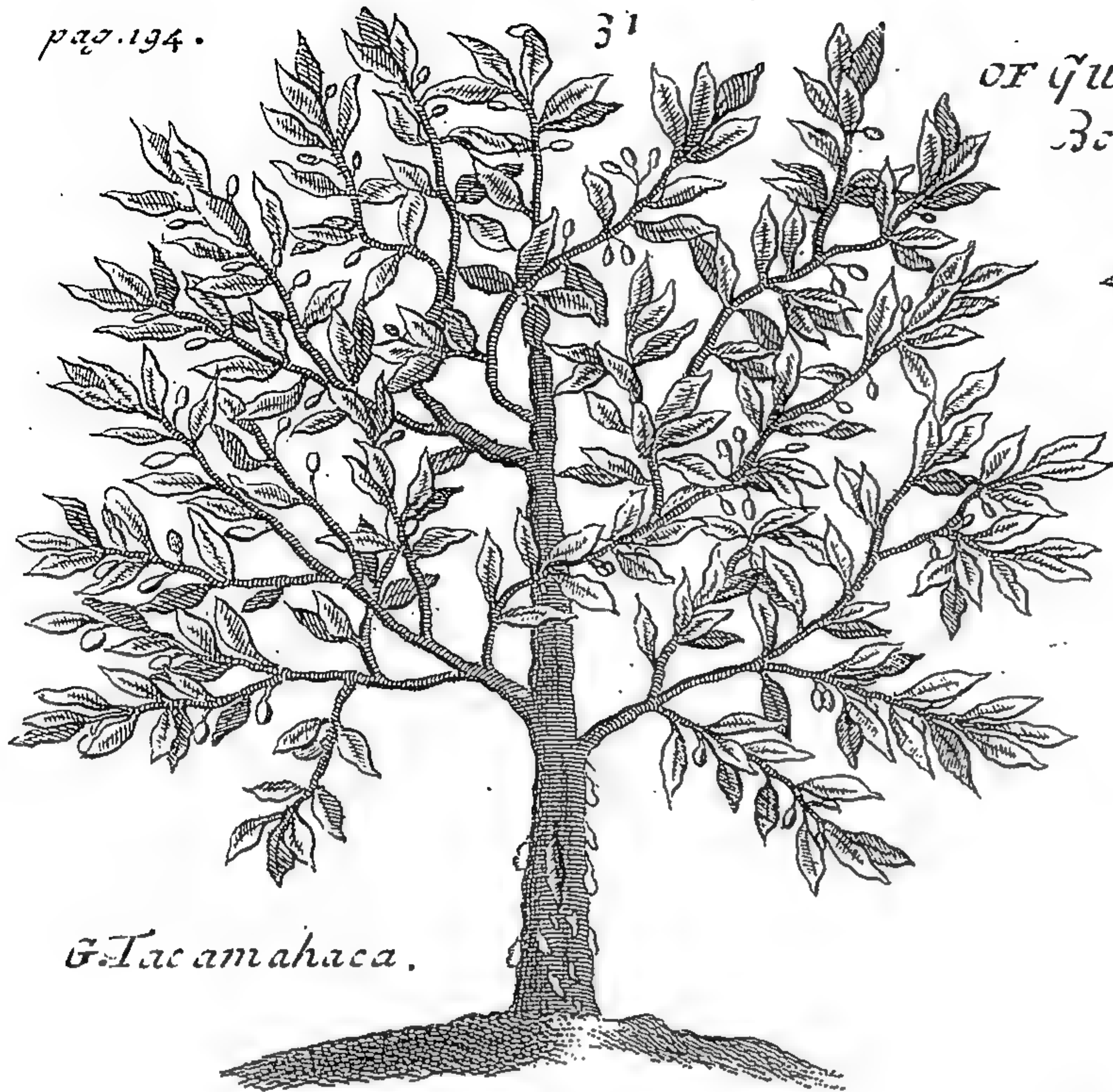
[The Tree which produces the *Tacamahac*, is the *Tacamahaca foliis crenatis, Sadelbouts Lignum ad Ephippia conficundum aptum.* Par. Bat. Prod. 379. *Tacamahaca Populo similis fructu colore Pæoniæ simili.* J. B. 1. 346. The Gum is of a very agreeable Smell, like that of Lavender and Angelica. We have it from *Madagascar* and *New-Spain*. It is principally used externally, and is in great Esteem for all Kinds of Pains among the *Indians*.]

32. Of Gum Ivy.

GUM *Ivy* is a liquid Rosin which hardens as it flows. This Gum *Pomet.* flows abundantly in the *Indies, Italy, Provence* and *Languedoc*, from the great *Ivy* that creeps or climbs upon Trees and Walls. Being at *Montpelier* in the Year 1680, and walking in the King's Garden, I perceiv'd an *Ivy* there that climb'd up a Bay-Tree, having on the top Branch a Piece of Gum of the Bigness of one's Finger, which I begg'd of Mr. *Chicannau's* Son, who gave it me; and after I had examin'd it, I found it like Glue, of a red Colour, a strong penetrating Smell, and unpleasant enough. After having kept it some time, it grew dry, brittle, and of a yellowish Colour, just as we have it come from *India* by *Macjelles*. Choose the best dry'd, clearest, of a balsamick Smell; and take Care that you be not impos'd upon with the *Gum Alouchi*, which is sometimes sold in its stead, especially when dear. It is reckon'd proper to make the Hair fall, and for the Cure of Wounds.

Hedera

31



G. Tacamahaca.

OF GUMS.
Book 8.

32

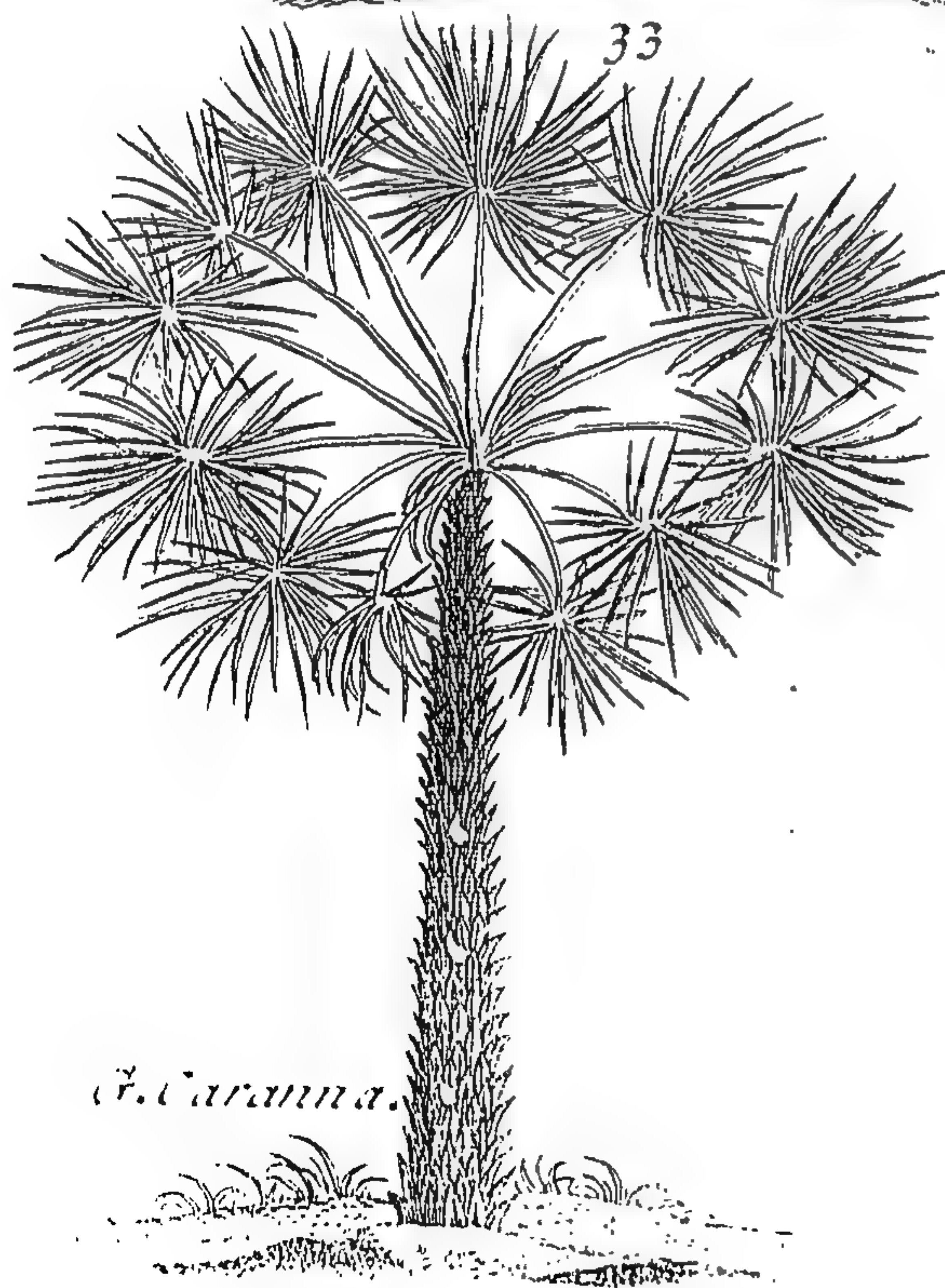
Plate 82.



G. Ivy.

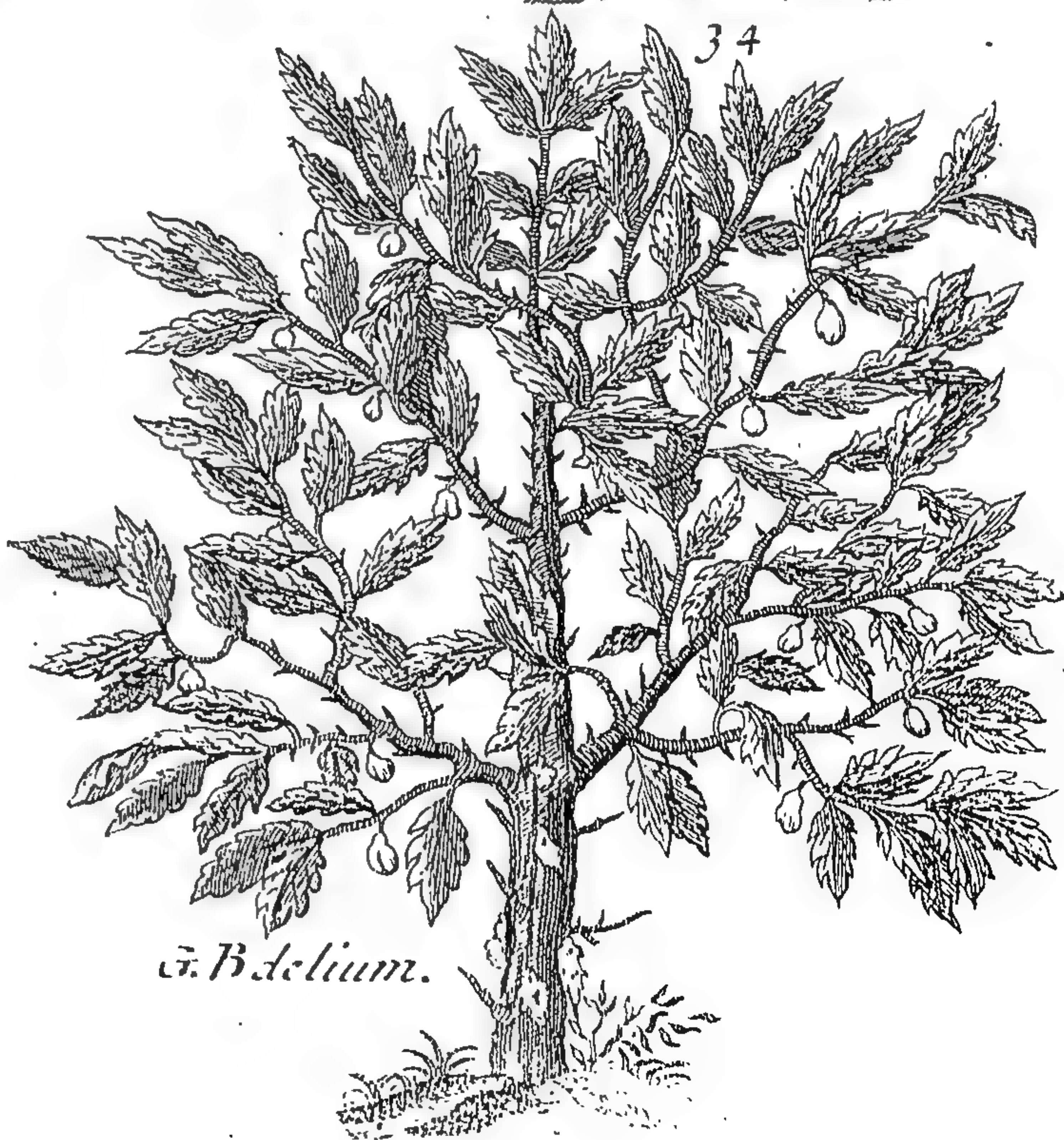
Vin climbing up a Bay.

33



G. Caranna.

34



G. Baelium.

Hedera Arborea, or the *Ivy-Tree*, is a *Lemery*. Shrub, or Tree, whose Branches creep up and cling to the next adjacent Trees or Walls, and insinuate themselves into the Cracks thereof, and into the Chinks of Stones, where they will fix a deep Root. The Bark is wrinkled, Ash-colour'd, and the Wood hard and white. The Leaves are broad, large, corner'd, thick, smooth, green all the Year, and shining, of an astringent acrid Taste. The Flowers grow at the Extremity of the Branches, compos'd each of six strip'd Leaves, of a grassy Colour, succeeded by round Berries, that are a little fleshy, and as large as those of Juniper, dispos'd in Clusters, of a black Colour when ripe. They contain each five Seeds, furrow'd on the Back, and flat on either Side. The *Ivy* grows generally upon Walls, and yields Abundance of Oil, and some essential Salt. It is deterfive and vulnerary. The Leaves are apply'd to Issues to cleanse them from their *Sanies*. They are likewise boil'd in Decoctions for the Ear-ach and Tooth-ach.

There is another Sort of *Ivy*, call'd *Hedera Poetica* by *C. Bauhinus* and *Tournefort*, and *Hedera Dyonisias* and *Chrysocarpos*, whose *Ivy-Berries* are of a Gold Colour. The Leaves of this are not so angular, but only sharper towards the Top, less thick, hard and fleshy than those of the other *Ivy*, and not of so deep a Colour. The Berries are of a fine Gold Colour. This Species of *Ivy* is rarely met with in *France*. The Antients made Crowns of it, with which they crown'd their Poets, from whence it is call'd *Hedera Poetica*, the *Poets Ivy*; *Hedera Dyonisias*, or *Bacchica*, because they made Use of this Sort of *Ivy* in their publick Rejoicings, and Feasts of *Bacchus*.

They make Incisions in the Trunks of the larger *Ivies* in the hot Countries, as *Italy*, *Languedoc*, and *Provence*, to make the Gum or Rosin flow, which hardens in a little Time, and which they call *Gummi Hederæ*, or *Gum-Ivy*. It ought to be of a reddish yellow, transparent Colour, of a strong Smell and an acrid aromatick Taste. The greatest Part of it that is sold by the Druggists comes from *India* by *Marseilles*. It yields a good deal of Oil and Salt, and is used externally to the same Intentions as the former, and is sometimes put into the Ointment of *Althæa*.

[This is produced by the common *Ivy*, the *Hedera arborea*. *Tourn. Inst.* 613. *Hedera corymbosa*. *Ger.* 208. The Antients thought this Gum a Caustick and Depilatory, but Experience shews it is neither, but a powerful Resolvent and Discutient, and an excellent Ingredient in Plaisters and Ointments in such Intentions.]

33. Gum Caranna.

Pomet. THE *Caranna* is a Gum which flows from the Trunk of several

Trees, like the Palm Tree, which are plentiful in *New-Spain*. This Gum is brought us in the Lump, wrap'd up in Reed Leaves. It ought to be soft, of a greyish Colour, inclining to green, of a sweet Smell, and something aromatick.

Some Authors observe, that there is a white *Caranna*, which I easily believe, as very probably it is of that Colour, when it is newly-fallen from the Tree, and only becomes of the Colour we see, by Reason of its Age; the whiter it is, therefore the more valuable: But have nothing to do with several hard Gums that are offer'd in its stead, because of its Dearthness. This Gum apply'd in a Plaister upon the Head, is admirable to abate the Pains thereof, as well as those of the Joints. And this Gum has such fine Qualities, that it is usually said, *What Tacamahaca cannot cure, Caranna can.*

The *Americans* compose a Balsam from this Gum, which they use with good Success for the Cure of Wounds and Hemorrhoids in this Manner: They take fine Turpentine half an Ounce, liquid Amber three Ounces, *Caranna*, *Mastich*, *Myrrh* and *Aloes*, of each two Ounces, *Copal*, *Tacamahac*, *Incense*, *Dragon's Blood* and *Sarcocolla*, of each a Dram and a half. Dissolve the Gums and Rosins upon the Fire, and after incorporate them with the Powders. *Gum Caranna* is mightily commended for its Faculty of discussing or asswaging hard Tumours: It is also apply'd to the Temples upon small Plaisters or Patches in the Head-Ach, or to prevent and restrain the falling down of the Humours upon the Eyes and Teeth. There is also prepar'd from it an excellent antipodagrick Plaister to be apply'd to gouty Swellings.

It is call'd *Caranna Gummi*, or *Caragna*, from *Cartagena* the Place of its *Lemery*. Production in the *Spanish West-Indies*, where it is in great Plenty, flowing out of a Tree cut or wounded. It is a hard Rosin, clammy but not glutinous, softish and tough, of a dark olive Colour, inclining a little to a Musk Colour. It comes forth soft, but condenses afterwards, not much unlike *Tacamahaca*, but more odoriferous and sweeter, and of something a brighter Colour; it comes wrap'd up in its broad fibrous Leaves like Reeds.

It is a famous Cephalick, Neurotick, Arthritick and Vulnerary; eases all manner of Pains in any Parts of the Body, proceeding from a cold and moist Cause, strengthens weak Limbs, and is accounted excellent to stop Desfluxions from the Glands, being apply'd Plaisterwise to the Temples. It eases the Spleen, and dissolves the Hardness thereof, mollifies Swellings, and cures green Wounds, chiefly of the Nerves and Joints: Dose inwardly from a Dram to two Drams. There is a Spirit, Oil and Balsam made from

Carannā : The volatile Spirit is aperitive, and opens Obstructions of the Reins, &c. Dose from ten Drops to twenty in any proper Liquor. The Oil is good against Lameness, Pains, Aches, Convulsions, &c. anointed upon the Parts affected. The Balsam is excellent to heal and consolidate Wounds, to strengthen the Nerves, &c.

[The Tree which produces the *Caranna* is the *Ilabueliloca Quahuith*, i. e. *Arbor Insanice Caragna Nuncupata*. Hermand. *Caranna*. Jonf. Dendr. 356. The Gum, or rather Rosin, is brought from the Province of *Mechoacana* in *America*. A Plaister of it, as broad as a Shilling, laid to the Temples, is by some said to be an infallible Remedy for the Tooth-ach.]

34. Of Gum Bdellium.

Pomet. **B**dellium is a Gum which flows from the Trunk of a thorny Tree, whose Leaves are like those of the Oak, and the Fruit like the wild Fig; it is brought to us from *Arabia Felix*, and the *East-Indies*; it should be chosen in clear transparent Pieces of a reddish grey without, and the Colour of *English Glue* within, dry, clean, and of a good Smell; take Care not to buy Gum Alouchi in its Place, which is a black Gum often offer'd to Sale instead of the *Bdellium* when it is dear.

It is warm, desiccative, and sudorifick, and is given in Coughs and Diseases of the Lungs; it also dissolves the Stone, and provokes Urine taken in Powder from two Scruples to a Dram; but its principal Use is for the Mithridate, and other Galenical Compositions.

Bdellium is a yellowish or reddish Gum, that flows from a thorny Tree call'd *Bdellia*, growing in *Arabia*, *Media*, or the *Indies*. They say that it bears Leaves like those of the Oak, and a Fruit resembling the Wild-Fig, of a pretty good Taste. This Gum is brought us in Pieces of different Sizes and Shape, but the finest is usually oval, or in Fashion of Pendants for the Ears, neat, clear, transparent, reddish, fragrant, and that easily softens, of a Taste inclining to bitter, it yielding a good deal of Oil and volatile acid Salt; is digestive, discussive, sudorifick, drying, aperitive, serviceable in the Empyema, to provoke the Terms, hasten the Birth, and to resist Poison; used both externally and internally.

[The Tree which produces the *Bdellium* is the *Quercinis foliis Arbuscula, spinosa, lactescens, Portoricensis*. C. B. Pin. *Arbuscula Portoricensis lactescens foliis Quercinis spinis Geminis, ad singulorum foliorum Ortum exasperata*. Hort. Beaum. *Arbo. Lactescens Aculeata foliis Quercinis Americana Bdelli fera forte sive Arbor Bdellium ferens*

in *America*. Pluk. Phys. Tab. 145. There are two Kinds of this Gum in the Shops, one in large Cakes, reddish, and bitter, the other hard, brittle, of a darker Colour, and strong Smell. It is now brought from *Africa*, and is got in *Abyssinia* and *Æthiopia*; the Kind first describ'd is the best, and probably is what drops naturally from the Tree.]

35. Of Gum Sarcocol.

Sarcocol is a Gum that flows from a little prickly Shrub, whereof the *Pomet.* Leaves are like *Sena*, of a white Colour tending to a yellow: Almost all Authors say, that these Shrubs grow in *Persia*; but two Friends of mine at *Marseilles* writ to me in *July* 1692 after this manner, that *Sarcocolla* was a Gum that is gather'd in the Deserts of *Arabia*, the Tree being little and very thorny; chuse that in Tears or Grains, of a white Colour, inclining to yellow or red, of a sweetish Taste, attended with an unpleasant Bitterness.

This Gum is wonderful in its Kinds, in that it flows from the Tree both without Incision, and by Incision, in Tears or Drops of different Colour and Bigness, white, yellow and red; which when they are dry, are granulated, as they are brought to us from *Marseilles*. There is besides another Sort of *Sarcocol*, which is in brown Lumps, and looks like a Composition; but I take it to be nothing but the damag'd Gum; however it ought to be thrown away, as also that which is very full of Dirt, and other Filth, to which it is much subject. This is very proper for curing of Wounds, which made the *Greeks* call it *Sarcocol*, which signifies *Flesh Glue*. It is consolidating and repelling, used chiefly to heal Wounds, stop Fluxes in the Eyes, and clear them from any Clouds, Films, Pearls, &c. that may hinder the Sight. It is good to purge the Head, and therefore profitable against Coughs, Shortness of Breath, especially in Persons that are flegmatick. Outwardly it is used against Inflammations of the Eyes, and to heal Ulcers in the Ears. The Fume thereof from Charcoal, receiv'd up the Fundament, cures the Piles, and other Diseases of those Parts.

Sarcocolla, or *Flesh-Glue*, is a granulated Gum, in very small Bits, spongy, *Lemery.* of a yellowish Colour, tending to white, resembling the broken Pieces or Remains of a Gum, or of Frankincense that have been grossly powder'd. We have it brought us from *Arabia*; where, as some say, it comes from a thorny Shrub, whose Leaves are something like *Sena*.

Sarcocol is of such a brittle Nature, that it moulders down into a gross Powder only by shaking or handling it; wherefore it is commonly brought over to us in small Grains, not much bigger

35

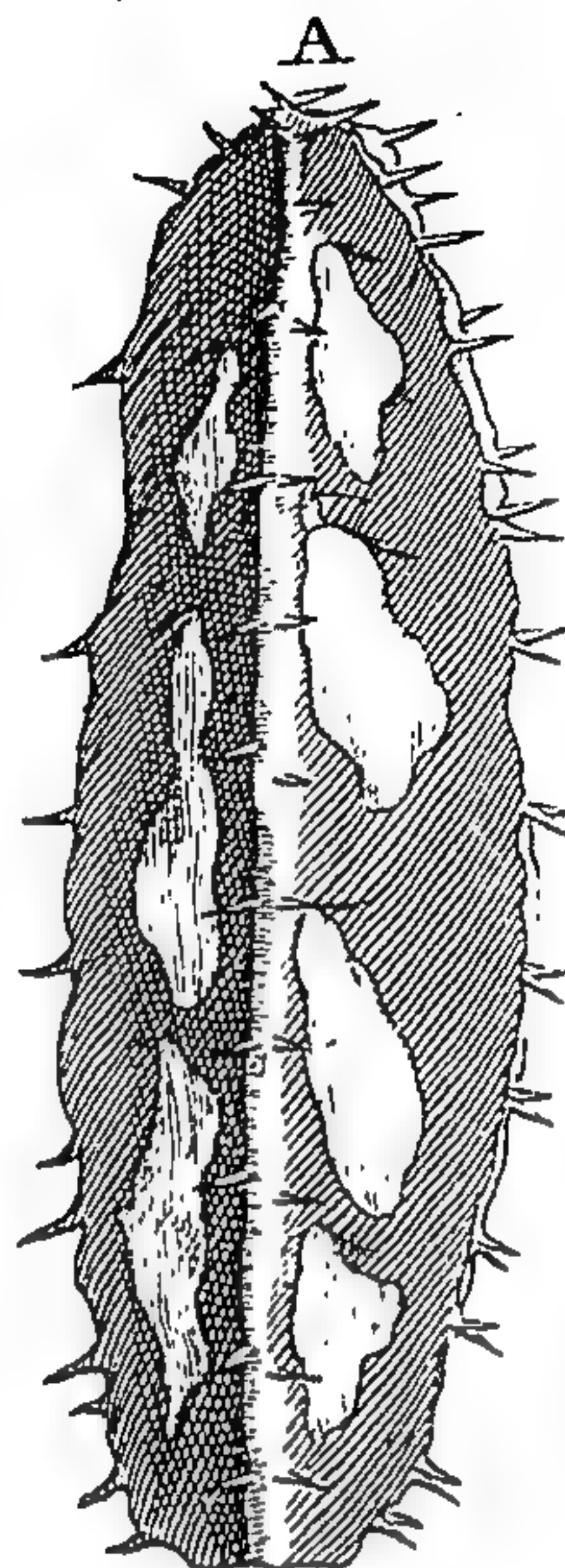


G. Sarcocolla.

36



G. Euphorbia.



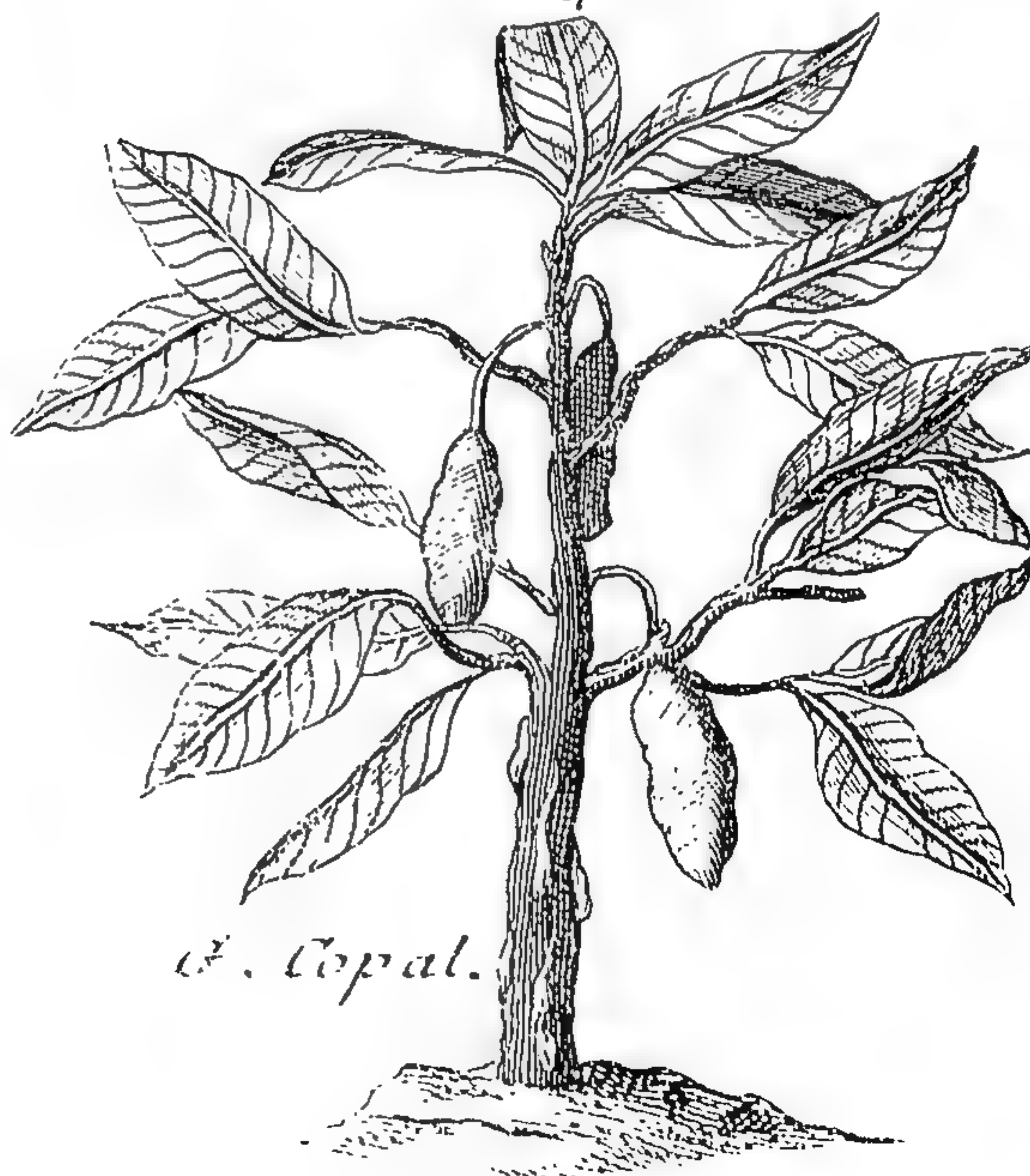
The Euphorbia Berry.

37



Olibanum.

40



G. Copal.

bigger than Poppy Seeds ; yet sometimes we meet with some that are bigger and thicker. They are of several Colours, viz. white, brown, and red, of a bitter Taste, with a certain nauseous Sweetness : and being chewed between the Teeth, they become tough ; being held to the Flame of a Candle, they first boil or fry, and then send forth a clear Flame. It stops and prevents the Defluxion of Humours upon the Eyes, and takes away Spots, or white Specks over them, being steep'd in Asses or Womens Milk. Moreover, *Sarcocol* agglutinates Flesh, and conduces to the consolidating of spongy Wounds. There is an excellent Eye-Water made of *Sarcocol*, steep'd in Nurses Milk, with Mucilage of Quince Seeds made with Rose-Water.

[We have two very different Accounts of the Vegetable, whose Gum is the *Sarcocolla* ; the first that it is a thorny Species of Tithymal, found in *Persia* ; and the other, and more probable one, that it is a Siliquose Tree, with a Papilionaceous Flower. But 'till some Person of Judgment and Veracity has observ'd it on the Spot, there is no affirming any Thing of a Certainty about it. We have it from *Persia*, and in all Probability the Difference of Colour in the several Species of it, is owing to its different Age.]

36. Of Euphorbium.

Pomet. **E***uphorbium* is a Gum that flows from among the thick prickly Leaves of a Sort of Plant that is found in great Quantities in *Libya*, upon Mount *Atlas*, and in *Africa*. The Antients have writ variously upon the Nature of *Euphorbium*, and of the Manner of gathering it. Some saying that it flow'd by Means of wounding the Plant with Iron Instruments of a great Length, for fear of the Smell that was very mischievous, and that the Leaves being thus cut, there came forth a white Juice, like Milk, which was receiv'd in Sheep-Skins, spread under it for that Purpose. And others will have it that it was a thick Juice, from a Green Fruit of about the Size and Shape of our Cucumber. But those who have seen it, as well as myself, can attest it is no Juice, as supposed, but the Gum of a Plant. And besides, I can assure you 'tis so from the Sight of a Leaf, which is the Length and Thickness of one's Thumb, of a quadrangular Shape, each Corner of which is found full of sharp Thorns, at the Bottom of which is the *Euphorbium*, which is gain'd without any Incision, according to the Figure mark'd A. Choose the newest, of a white Colour, inclining to Gold ; the least full of Dirt, the dryest and clearest that is possible.

There are Abundance of little Seeds to be met withal in *Euphorbium*, made in the Shape of

a Priest's Cap, very light, of the Colour of *Coriander*, in which is contain'd a little round Seed, like a Pin's Head, which some have assur'd me is the Seed of the very Plant which brings forth the *Euphorbium*. This Drug is not much used in Medicine, because of its immoderate Heat, and great Acrimony ; but much by the Farriers, being very good for the Farcy and Wind-Galls in Horses. The *Africans* use this Gum internally, but they wash it first in Poppy-Water, to abate the Heat of it.

Euphorbium being reduced into a fine Powder, which is a very difficult Task to do, is enclosed in a hollow'd Quince, which being cover'd over with a Paste, is baked in an Oven. It ought to be corrected with Vinegar, Juice of Lemons, or four Pomegranats ; or else with the Flegm or Spirit of Vitriol. By a chymical Analysis it yields a great deal of Oil, of a most stinking Smell, and a hot burning Taste ; moreover, an acid Flegm, and a sharp, concreted, volatile Salt are extracted from it. *Euphorbium* purges violently from five Grains to twelve, and is used against the Dropsy and lethargick Distemper. The Pills of *Euphorbium* of *Quercetan*, are prepar'd from it, being good against intermitting Fevers. It is used in the Pills of *Nitre* of *Trallianus*, and in *Mesue's* Pills of *Hermodytyls*.

Euphorbium, so call'd from *Euphorbius*, Physician to King *Juba*, who *Lemery* first introduced it into Practice, and with it cur'd *Augustus Caesar* ; is a yellowish Gum in little brittle Pieces, very acrid and burning to the Taste. It flows by cutting from a Sort of *Ferula* that bears the same Name. The Bark is hard and thorny ; the Leaves about the Length of a Man's Finger, and thick, of a quadrangular Form, garnish'd at each Angle with a great Number of little Thorns. It grows in *Libya*.

It is yellow and clear, in hollow Drops as big as Pease, and almost like *Sarcocol*, and is in Bladders as clear as Glass. Choose that which is white, bright, pure, or yellow and sharp, which, with a small Touch, makes the Tongue burn. It is the better for being old, Age abating its Sharpness, which whilst fresh is not to be used. *Dodonaeus* saith it is the Gum of a Plant. *Dioscorides* affirms, that it proceeds from a Kind of *Libyan Ferula*, being cut. It is adulterated with Gum *Sarcocol*, and Juice of *Tithymal* or *Spurge*. It purges serous and watry Humours, but is violently inflaming. It is administer'd with great Caution in Dropsies, Gouts, Palsies, and Green-Sickness ; for it powerfully opens the Womb, provokes the Terms, and brings away both Birth and After-Birth.

[The Plant which produces the *Euphorbium*, is the *Euphorbium verum Commelin*. *Euphorbium verum Antiquorum*. R. Hist. 1. 873. Hist. Arab.

Amst. 123. *Euphorbium trigonum spinosum rotundifolium*. Act. Reg. Par. Anno. 1720.

When it is given inwardly, it is best dissolv'd in the Yolk of an Egg, and diluted with Oil of Sweet Almonds. Some venture it in Clysters, in the Quantity of twelve Grains, in Palsies and Lethargies, and it is sometimes used in Snuff.]

37. Of Olibanum, or Male-Frankincense.

THE *Olibanum*, which we usually call the *Male Frankincense*, is a Gum that flows, by Incision, from the Trunk of several Shrubs which are found plentifully in the *Holy Land*, and in *Arabia Felix*, where they grow in great Quantities, especially at the Foot of Mount *Lebanon*, from whence came its Name *Thus Libani Oleum Libani*, and by Corruption of the Language, *Olibanum*; it was also call'd *Frankincense*, because the Antients made Use of it for an Incense to their Gods. From *Arabia Felix* they transport it by the *Red Sea* to *Egypt*, from whence it comes to *Grand Cairo*, and from *Grand Cairo* to *Alexandria*, where it is embark'd for *Marseilles*. Several Persons write, that when they cut the Trunk of the *Frankincense-Tree*, and it begins to drop, no Body, except those who are of a certain reputed holy Family, may be permitted to gather it. Chuse the finest white Tears, inclining somewhat to a gold Colour, which being chew'd, make the Spittle white as Milk, and are of a bitter unpleasant Taste, throwing such aside as is full of Dust, and Leaves, and little yellow Pieces, to which it is very subject. Its Use is for several Compositions, as well Chymical as Galenical.

This *Olibanum* drops from the Tree plentifully, in roundish Drops, some bigger, some less, scarcely any of them exceeding the Size of a Horse-Bean; and it falls pure, without either Bark, Wood, or any other Thing sticking to it, and is of a yellowish white; the whiter it is, the more it is esteem'd. This resinous Gum strengthens the Bowels, stops Fluxes and the *Gonorrhœa* in Men, with the *Fluor Albus* in Women, taken from one Dram to two in Jelly of Isinglass. It is cephalick, cardiack and pectoral, comforts the Head, and revives the Memory, suppresses Melancholy and the Vapours, and abates vehement Coughing, Hoarseness and Catarrhs. The Fume taken up the Fundament, cures the Piles.

38. Of Moca Frankincense.

THE *Frankincense* of *Moca* is nothing else but a Kind of *Olibanum* in little Tears, or in the Mals, much

loaded with Dirt, of a reddish Colour, something bitter to the Taste, that is brought into *France* by the *East-India Company*; upon which Account it is call'd the Company's *Frankincense*, *Olibanum*, or *Indian Frankincense*. They never sell it but to counterfeit the former, and sometimes, tho' very improperly, for the true *Bdellium*.

39. Of the Manna of Frankincense.

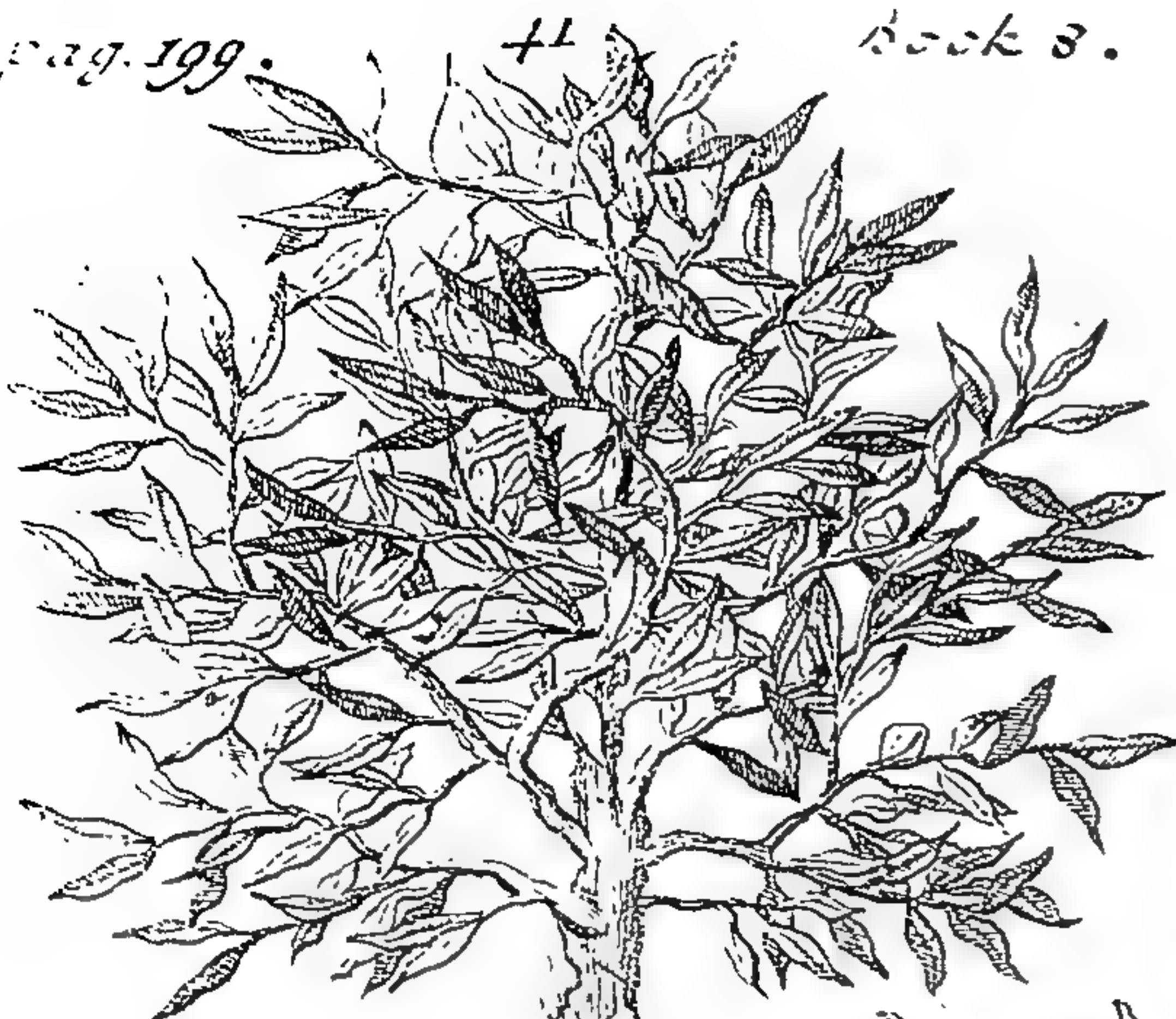
THE *Manna* of *Frankincense* is only a Number of little round Grains, that are clear and transparent, which are found in the *Olibanum*, and which are to be used for the same Purposes and after the same Manner as *Olibanum*.

Thus, or *Frankincense*, is a Kind of white or yellowish Resin, which yields a great Smell and Perfume, when thrown into the Fire; it is drawn by Incision from a little Tree, the Leaves whereof are like the *Lentisk*, and which grows plentifully in the *Holy Land*, especially about Mount *Libanus*. They call this Tree *Thus*, or *Arbor thurifera*; the Tree bearing *Frankincense*.

The first that flows from the Tree in clear pure Tears or Drops they call *Olibanum Melax*, *Thus Masculum*, or the *Male Frankincense*; that which falls confusedly on the Ground, and is sometimes mix'd with the Pieces of the Bark of the Tree, or with some other Impurities, is the common *Frankincense* which some call *Female Frankincense*; it is in the Lump, yellowish, soft, fat, very apt to take Fire, and odoriferous: That which is call'd the *Manna* of *Frankincense*, is the *Olibanum* in small Grain or Seed, that is round and pure, bearing the Colour of fine *Manna*; this Sort yields abundance of Oil and volatile Salt. The *Olibanum* is deterfive, a little astringent, sudorifick, proper for Diseases of the Breast, for the Pleurisy, to strengthen the Brain, for the scouring of the Guts, being taken inwardly, and is used externally to deterge and consolidate Ulcers. The common *Frankincense* is deterfive, and desiccative, being mix'd in Ointments and Plaisters.

The Bark of the Tree, from whence the *Frankincense* flows, is call'd *Thymiama*, *Thus Judæorum*, or the *Frankincense* of the *Jews*: It is call'd *Thymiama* from smelling sweet in burning, because they burn this Bark in the Churches, or their Houses, to perfume them. It ought to be chosen thick, fat, or resinous; smooth, fresh and fragrant; it is deterfive and drying.

[We are not certainly inform'd what Tree it is which produces the *Olibanum*; *Theophrastus* calls it a small Tree with Leaves like those of the Pear-Tree; others have compar'd it to the *Lentisk*, and others to the *Acacia* Kind; and *Theophrastus*, who



G. Cancamy.



Bal - sam of
Judea &c.



It Sanifary Guar
-ding & Balsam shrub



Balsam
of Peru



Balsam of
Tolu.



Balsam of
Capiru.



Liquid amber.



New Balsam.

who in all Probability is most right of all, judges it to be of the Pine Species.

The *Olibanum* is brought to us from *Africa* and the *East-Indies*.

The *Thus vulgare* of the Shops is the dry Resin of the *Pinus sylvestris*, Ger. 1175. *Pinus sylvestris vulgaris Genevensis et Teda*, J. B. 1253. and the softer Kind, call'd *Thus fœmininum*, or common Incense, is only a thinner Sort of this, very much approaching to the Turpentine Kind.]

40. Of Gum Copal.

THE Gum Copal, which we call *Pomet*. Oriental Copal, is a clear, transparent Resin, of a golden Colour, that flows from the Trunk of a Tree of a moderate Growth, adorn'd with Leaves which are green, long, large, and pointed; and with a Fruit that is like our Cucumbers, of a dark Colour, in which is to be found a Meal, or Flour, of a very good Taste.

Chuse this Resin in fine Pieces, of the most beautiful yellow Colour, clear and transparent, that is easy to break or crumble; and which, when put into the Fire, melts presently, and yields a Smell like that of *Olibanum*. This Resin is very seldom brought into *France*, and therefore its Use is little known, altho' it is often met with in both the *Indies*. But in the Room of it we have another Gum Copal brought from the *American* Islands, which some improperly call *Karabe*. This Gum flows, without cutting, from the Trunk and Branches of several large Trees, like our Black Poplars, that grow plentifully upon the Mountains of the *Antilles*, from whence it is brought along the Rivers, by means of the Rains and Torrents of Water that pass by the Roots of these Trees, where this Gum falls naturally. Its Use is to make Varnish of, with Spirit of Wine, and to sell instead of the true *Karabe*, tho' very improperly, because it is scarce any thing like it; smells little when burnt, and is therefore no ways useful to allay the Vapours: Besides, it is so like the Gum Senega, that there is nothing but the Colour, and the not dissolving in Water to discover the Difference by.

[The Tree which produces the Copal, is the *Copalli quavith Palaboca sive arbor Copallifera latifolia sive secunda*, Hern. 46. *Rhus Virginianum Lentisci foliis*, R. Hist. p. 1799. It grows both in the *East* and *West-Indies*.

The *Indians* call all transparent odoriferous Gums Copal; and *Hernandez* has described eight Kinds of Copal Trees; but the Species here mention'd, is that which produces the Gum we use, under that Name, which only differs in Colour according to its Purity, and to the Climate in which the Tree grows. It is not much used in Medicine, but is in great Esteem among the Varnishers.]

41. Of Cancamum, or Gum Cancamy.

THIS is a Drug that is controverted even to this Day; some affirming *Pomet*. it to be Gum Lac, others Myrrh, Benjamin, and Turmerick. But Mr. Brisot, a Physician at Paris, at his Return from his Voyage to the *West-Indies*, brought into *France* a Gum of four different Colours; the first Amber-colour, the second blackish, the third the Colour of Horn, to which was fasten'd a dry white Substance which was what we sell by the Name of Gum Animæ; this a great many People scarcely believe, notwithstanding Dalechamp, and others, have mention'd it; but I can attest the Truth of it, having a Piece by me of the Size of one's Finger, where the four Sorts of Gums are sticking together.

The Tree that bears these four Sorts of Gums is of a moderate Height, and the Leaves like those of Myrrh; it grows every where in *Africa*, *Brasil*, and in *St. Christopher's*, from whence this Piece came, which was given me by a Friend the 30th of July 1686, who had it of a Person of the first Quality, to whom it had been sent by one of the Governors of *St. Christopher's*: That which resembles Amber, being burnt, dissolves, and has the Smell of Gum Lac; the second, which is black, melts as the other, and has a much sweeter Smell; the third, which is like Horn, is almost without Smell; the fourth is the Gum Anime: But since we have none comes to Paris but the Anime Kind, chuse such as is white, dry, brittle, and of a good Smell. This Gum is very little used in Medicine, tho' endow'd with a great many good Qualities, being a natural Balsam. Some would put off, tho' very wrong, Gum Anime for Gum Elemi; for there is a great deal of Difference, the Anime being hard and white, the Elemi moist and greenish.

Guinmi Copal, sive Pancopal, is a soft Gum, of a very good Smell, of a white yellowish Colour, and fragrant, brought from *Hispaniola*, and other Places of the *Spanish West Indies*. Some Authors have thought this Gum and Gum Anime to be all one; they may possibly be comprehended under one Genus; but I am confident that Copal is a Species different from the other; for Copal is a fine, clear, transparent, white Gum, in somewhat greater Pieces, and very odoriferous, tho' not altogether so sweet as the Anime is; and with this Copal it is that the *Indians*, instead of Incense, perfume their Sacrifices in their Temples, as the *Spaniards* observ'd when they first came among them.

Gum Anime is also a whitish Gum, but is fatter. Gum Copal is more pure, clear, and white, and not so fatty as the other; so that of the two, the Copal is indeed the more excellent in Substance;

stance ; but the *Anime* is the more odoriferous, and to be chosen before the *Copal*, if it be for a medicinal Use ; but the *Copal* is to be chosen before the *Anime*, if for any other Purposes.

Cancanum is a very scarce Gum, which is clotted, and resembles several Sorts of Gums or Rosins united, or sticking close one to the other, as one entire Gum. Some will have it to be a Species of Amber, others of *Gum Anime*, some of Benjamin, and some again of *Lac* ; whereas all the *Cancanum* we know comes from *Arabia*, and most of the others are unknown there ; so that it rather appears to be a singular Species or Kind of itself, and the true Rosin of a Tree growing in *Arabia*. As to its Virtues, Experience confirms that it strengthens the Stomach and Bowels, kills Worms, and opens Obstructions of the Spleen. You may make a good Varnish by dissolving it in Spirit of Wine tartariz'd, or good Spirit of Turpentine, as you make Varnish of *Gum Anime*, or of Seed and Shell Lac.

[We are altogether ignorant what was the true *Cancanum* of the Antients ; some have thought they meant Myrrh by this Name, and others, with more Probability, *Gum Anime*, which is produc'd by the *Animi fera Arbor Brasiliensis*, Herm. Par. Bat. Pr. 312. *Anime Cancanum Græcorum*, Mont. Exot. 11. *Acaciæ quodammodo accedens Arbor Animæ Gummi fundens Americana foliis magnis acuminatis in pediculo binis Lobo magno, erassissimo Eduli*, Breyn. Prodr. 2. 8. Courbaril. Plum. N. G. 49. It grows in *New Spain* and *Brasil* : The Gum has the same Smell and Virtues with the *Copal* ; and it is also to be observ'd, that the Word *Anime* among the *Indians* comprehends as many Gums as *Copal* ; but the Tree here mention'd, produces what we receive and use under that Name.]

42. Of Gum Lac in the Stick.

Pomet. THE natural *Gum Lac*, or that in the Stick, is a reddish Gum, that is hard, clear, and transparent, which is brought us adhering to little Sticks or Reeds, of the Thickness and Length of one's Finger, from the Kingdom of *Pegu*, where it is found in great Quantities.

The *Sieur Rousseau*, who was a long Time in the *Indies*, in *Persia* and *Pegu*, where they gather this *Gum Lac*, says, that in those Parts there is a vast Quantity of Insects, like our common Flies, that gather together the Dew which is found on several Trees after the same Manner as we observe our Bees ; and when they are full of this Dew, they discharge it upon whatever they meet with : That the Inhabitants of those Places stick up Branches of Trees, Sticks or Reeds, as we do here in the Ground for Pease, or the like, to

run upon, that the Flies may discharge their Loads of Dew upon those Sticks, and the Sun dries them to a Gum that is hard and dry, just as we see it ; which is not improbable, since the *Lac* we have brought over, sticks upon Pieces of different Wood, and likewise upon little Reeds : Besides, it is easy to see that this Gum does not flow from these little Pieces of Wood on which it is found sticking ; because there are no Appearances from whence such a Matter should proceed. The said *Sieur Rousseau* has assured me that the lower End of the Body of these Flies, put into Spirit of Wine, makes the most beautiful Red imaginable ; and that it was the Tip of these Flies that might be call'd the Animal *Cochineal*, and not the *Mestick Cochineal*, which we have treated of before.

When this Gum is in Perfection, they gather these small Sticks loaded with it, which they keep to make a Tincture of, and to trade with several Nations, especially with the *Dutch* and *English*, from whence we have it ; and this is what we call *Stick-Lac*. Chuse this Gum clear and transparent, such as melts well, the least full of Sticks, black Gum, and other Filth, to which it is very subject, and such as being chew'd, tinges the Spittle red, and boil'd in Water, with any Acid, produces a fine scarlet Colour. 'Tis with this Tincture that the *Indians* stain their Linnen, and the People of the *Levant* what we call *Turkey-Leather* ; and the *Indians* make the Wax we name from thence *Indian-Wax* ; the *Dutch* and *English* make Scarlet of it.

When the *Dutch* and *English* would clear what there is good from the *Stick-Lac*, they grind it slightly in a Mill, and that which passes through the Linnen, they separate, which they use for Dying ; the Remainder is the grosser and worse Part, and is what they send to us (mix'd with what they have, by the Assistance of Acids, drawn the finer Tincture from, without changing its Figure, and dry'd) and call *Seed-Lac*.

It ought to be chosen such as melts well, and comes as near the Properties of the *Stick-Lac* as may be.

When they would make what is call'd *Shell-Lac*, they take the *Gum-Lac* off the Sticks ; and when it is melted, they cast it upon a Marble, and make it flat and thin, as we now see it : It is of different Colours according to the Fineness of the *Gum Lac* that was used ; but that which is almost black, is what has been made with such as had the Tincture drawn from it before. The *English* have brought into *France*, for many Years, a large Quantity of the finest *Gum Lac*, made in the Shape of Ears, whence it has receiv'd the Name of *Ear Gum* ; but of late there has been none of it seen. As to the Choice of *Gum Lacs*, the principal Thing is to have them such as will melt

melt well ; for all the *Gum Lac* that will not melt is good for nothing but to be thrown away, especially if design'd for *Spanish Wax*, which is the chief Use of it. As for the *Shell Lac*, it ought to be shining, clear, transparent, the least rugged, of the highest Colour, and the thinnest that may be. The third Sort, such as will melt best, ought to be the least burnt ; and as to the *Seed Lac*, the Makers of Sealing-Wax grind it in Mills, as they cannot melt it.

Lacca, or *Gum Lac*, is a hard, red, *Lemery*. clear, transparent Rosin, which is brought us from *Bengal*, *Malabar*, *Pegu*, and several other *East-India* Provinces, adhering to little Sticks about the Length and Thickness of one's Finger. They pretend it is made from the great wing'd Ants, or a Kind of Flies resembling our common Flies, which draw a Juice from the Substance of certain Trees, and discharge the same upon the Boughs of others, or else upon Sticks or Reeds, set up for that Purpose ; which being dry'd into a Gum, is call'd *Stick Lac*. You ought to chuse such as affords the highest Colour, neat, clear, a little transparent, that will melt upon the Fire when it is lighted, yields a pleasant Smell, and being chew'd tinges the Spittle of a red Colour ; and likewise boil'd in Water with any Acid, strikes a beautiful scarlet Dye. This Gum yields abundance of Oil, a little volatile Salt, some Earth and Phlegm ; it is incisive, penetrating, deterfive ; it purifies the Blood, excites Sweat, and Womens Courses ; facilitates Respiration, resists the Malignity of Humours, and strengthens the Gums.

They sell at the Druggists a flat *Gum Lac*, call'd *Shell Lac*, which differs not from the other, but as it is separated from the Sticks ; dissolved and cast upon a Marble, it looks like Glass of Antimony. They have likewise *Lac* in Seed, or little Bits ; but usually it is not so good as the other, because it is often only the remaining grosser Parts of the Gum, after the *Dutch* and *English* have taken the scarlet Tincture off from it. This *Seed Lac* is used for Sealing-Wax. The *Indian* Sealing-Wax is made of the *Gum Lac* melted or liquified, and colour'd with Vermilion, and is much better than that made in *France*, because it is composed of choice *Gum Lac* ; instead of which, that of *France* is generally of the worst *Seed Lac*, Rosin, and Vermilion. The black Sealing-Wax is ting'd or colour'd with Smoke Black ; the yellow with Orpiment, &c.

They give the Name of *Lac*, or *Lake*, to several Kinds of dried Pastes, or Crayons, which the Painters use to paint in Miniature, and in Oil. That which is call'd fine *Venetian Lac*, is made with Mestick Cochineal, which remains after drawing off the first Carmine : These they prepare better at *Paris* than *Venice*, and make them

up in little, soft, brittle Troches, of a deep red Colour. That which is call'd *Dove Lac*, or *Flat Lac*, is made with Shavings of Scarlet, boil'd in a *Lixivium* of white Pot-Ashes, Chalk and Alum, which they form a Paste of, and make into Tablets to dry ; the best is made at *Venice*. There is a certain Tincture made of *Brasil Wood*, which the Painters call *Liquid Lac*.

43. Of Indian Wax.

THE *Indian Wax* is made of Gum Lac, melted and colour'd with *Pomet*. pale Vermilion, and afterwards form'd into round or flat Pieces, in the Manner as we now have them. Chuse such as melt well, are smooth, the least full of brown Spots, and of the highest Colour you can get. This Wax is of no other Use than to seal Letters, and it ought to be this which bears the Name of the true Sealing-Wax, and not that which is mix'd and traded with at *Paris*, which is no other than the Seed Lac, ground and incorporated with melted Rosin, and colour'd by the Addition of a little Vermilion, and so sold amongst us. And as this Wax is of a base Colour, because they put in very little Vermilion, they cover their Sticks over slightly with a good shining Red ; which Cheat is easy to discover by breaking the Sticks, and seeing that they are not of the same Colour within as without. I wonder why this Kind of Wax should be so falsely call'd *Spanish Wax*, since the *Spaniards* never make it, but are entirely ignorant of it. There are several other Sealing-Waxes made of other different Colours, as black, yellow, &c. besides perfum'd Wax, that is made by adding a little Civet or Musk to the Composition.

[This common Opinion of the *Gum Lac* being left on Sticks, &c. by Flies, which is also countenanc'd by *Garzias* and *Bontius*, who both say, that it is form'd in that Manner by what they call a Species of large wing'd Ants, seems repugnant to Reason and the common Course of Nature, and is not believ'd by many very eminent Authors, among whom *John Bauhin*, and the late celebrated Mr. *Ray*, are of Opinion that it is the natural Gum ouzing from the Branches of the Trees we have it found on. *Herman* has describ'd several *Lacca-Trees* ; but what we have brought into *Europe* is gather'd from the *Jujuba Indica*, Rai. Hist. 2. 155. *Jujuba Indica rotundifolia spinosa, foliis majoribus juctus lanuginosis et incanis*, Breyn. Pr. 2. 60. Commel. Flon. Mal. 149. *Zizyphus Indica Argentea teta*, Herm. Mus. Zeyl. 8. 37. which is plentiful in *Malabar*, and many other Parts of the *East-Indies* ; and I think there can be no great Difficulty in deciding the true Origin of this Drug, when *Herman* affirms that he has himself often procur'd a fine red and transparent

parent *Gum Lacca*, tho' in small Quantities, from Incisions which he made in the Bark of this Tree. The Puncture made in the Bark by Flies and Ants may indeed very much facilitate the flowing of this Gum; and hence, I suppose, grew at first the Opinion of their leaving it there: Nay, tho' we should allow Mr. *Geoffroy* the Truth of what he supposes, as to its being the Nests of these Insects, and their Eggs being found in some of the Cells of it, I cannot see that he need think that a Proof of the Matter's being brought thither by them, any more than that the Substance of a Gall is brought and lodg'd upon an Oak by a Fly, because the Egg, or *Eula*, of a Fly is found in it: Allowing therefore the Truth of these Eggs being sometimes found in the Cells of the *Lacca*, as I must acknowledge I have sometimes found Bodies that had that Appearance, I think it rather a Proof of, than an Objection against, what I believe as to the Origin of the *Lacca*, which is, that Nature has instructed a certain winged Insect to pierce the Bark of the *Jujuba Laccam fundens*, as I would call that Species we have the *Lacca* from, and there to leave its Eggs, where a proper Juice would soon naturally flow over them, and defend them from external Injuries 'till the Time of their hatching.]

44. Of Balsam of Judæa, or Balm of Gilead.

Pomet. THE Balsam of *Judæa*, which we usually call *Opobalsamum*, *Balm of Gilead*, *Egyptian Balsam*, or *Balsam of Grand Cairo*, is a liquid white Balsam, that flows during Summer from the Trunk of a Shrub, that bears Leaves like Rue, and white Flowers shap'd like Stars; in the Middle of which rise little Berries, that are sharp at the End, in which is a small Kernel; this little Fruit we call *Carpobalsamum*; it sticks to the Branches by means of a small Stalk, is green at the beginning, and grows brown as it ripens.

Jericho was once the only Place in the World where this true Balsam was to be found; but since the *Turks* have been Masters of the *Holy Land*, they have transplanted this Shrub into their Gardens at *Grand Cairo*, where they are guarded by several *Janissaries*, during the Time the Balsam flows. A Friend of mine, who has been at *Grand Cairo*, assured me, that no body, unless by looking over the Walls, could get a Sight of these Shrubs, which are defended by very high Walls, as well as Soldiers, from any Christians entering. And as to the Balsam, it is almost impossible to get any upon the Place, unless it is by means of some Embassador at the *Porte*, to whom the Grand Signior has made a present of it, or

by the *Janissaries*, who watch this precious Balsam; by which we may understand, that what several Cheats pretend to sell for true *Balsam of Gilead*, is nothing but white Balsam of *Peru*, which they prepare with Spirit of Wine rectified, or with some distill'd Oils.

But it is met with sometimes in the Cabinets of the great Lords. In 1687 there happen'd to be a Quantity sent to *Madam de Villefavin*, which was found to be about fourteen Ounces in two Leaden Bottles, as it came from *Grand Cairo*, which was sold to a Person who let me see it; we found it to be very hard, of a Golden yellow Colour, and a Citron Smell: But since that, a Friend of mine gave me one Ounce, which he brought himself from *Grand Cairo*, and which was of a solid Consistence, like that of Turpentine of *Chio*, and of a fragrant Smell, which is the true Sign of its Goodness.

45. Of Carpobalsamum.

THE *Carpobalsamum* is as I have said, the little Fruit of the Balsam-Shrub; these, to have their due Qualities, ought to be new, and of an aromatick Taste, and a pretty pleasant Smell. They are of some medicinal Use, but principally for the great Treacle, wherein they require no other Preparation than to be chosen true, and freed from their Stalks, empty Shells, and such as are Worm-eaten amongst them.

46. Of Xylobalsamum, or the Balsam-Wood.

THIS is the Trunk and Branches, stripp'd from the Leaves and Seed of the Balsam-Shrub, which we have brought in little Faggots, from *Cairo* to *Marseilles*; for they every Year prune the Balsam-Shrubs as we do our Vines, and bind up the Cuttings for Sale; for the *Turks* love rather to make Profit of it, than burn it. Choose your *Balsam-Wood* in little Rods, full of Knots, reddish without, and white within, the most resinous and aromatick that can be got. The chief Use of it is in the Troches of *Hedieroy*, without any other Preparation than the Choice abovesaid.

47. Of Balsam of Mecca.

THE *Turks*, who go a Pilgrimage every Year to *Mecca*, bring from thence a certain dry white Balsam, in Figure resembling white Copperas, especially when it is stale. The Person who made me a Present of about half an Ounce, assur'd me, that he

he brought the same from *Mecca* liquid, and that the Smell is the same as that of the Balm of *Gilead*. The same Person likewise did testify to me, that it was as good as the Balm of *Gilead*.

There is a Tincture and Spirit of Balm of *Gilead*; the Tincture is a great Secret in the Venereal Disease; the Spirit is of great Value, by Reason of its balsamick Virtues, being beneficial to the nervous and membranous Parts; it contains a volatile, subtile, and deterfive Salt, which mundifies strongly, by which it takes away the Viscosities, Impurities, and other Diseases of the Lungs, Ureters &c.

Balsamum Judaicum, Gileadense verum Lemery. rum Aegyptiacum, Syriacum, de Mecca, the true Syrian Balsam or Balm of *Gilead*; proceeds from a small Tree or Shrub that once grew no where but in the Valley of *Jericho* in *Gilead*, and in *Arabia Felix*; but since the *Turks* have been Masters of that Part of the World, they have transplanted these Trees into other Parts, where no Christians are permitted to approach, by the Command of the Sultan, who has appointed Soldiers to guard every one of these Trees perpetually. This Tree rises to the Height of Shrub-Trefoil, bearing a few Leaves like those of Rue, or rather like the Leaves of the Mastick-Tree, being always green, and consisting of three, five, and sometimes of seven Wings. The Branches are odoriferous, resinous, and tough; the Flowers are of a white Colour, inclining to a Purple, not much unlike those of the *Egyptian* Thorn, or *Acacia*, of a very fine fragrant Smell; the Seeds are yellow, contain'd in Cods that are of a blackish Colour, inclining to red, being of a sweet Smell, a pungent and bitter Taste, pouring forth a yellow-colour'd Moisture like Honey: The Fruit of this Tree is call'd *Opobalsam*; and the Liquor issuing from it is call'd in the Shops, the Liquor of *Opobalsam*; and the Wood of the Tree *Xylobalsam*, or *Balsam-Wood*, which is cephalick and stomachick, resists Poison, and drives away any Contagion. It is prescrib'd in several pharmaceutical Dispensations, and may be used instead of Yellow Sanders, or Wood of Aloes. The *Carpobalsam*, or Fruit thereof, is alexiterial, proper to strengthen the vital Parts, to excite the *Semen Virile*, to cure the Biting of Serpents, and other venomous Creatures; but as it is scarce, *Cubebs* are used in its Stead.

There flows, in Summer-time, from the Trunk of this Balsam-Tree, being cut, or the Boughs lopp'd off, a liquid Resin that is white and fragrant, call'd in *Latin*, *Opobalsamum, Balsameleon, Balsamum de Mecha, Balsamum verum Syriacum, Balsamum album Aegyptiacum seu Judaicum*. As this Balsam is scarce, dear, and precious, it is apt to be mix'd and adulterated. It ought to be of a Consistence very near like that

of Turpentine, of a whitish Colour, inclining to yellow, transparent, of a penetrating and pleasant Smell, the Taste a little bitter and acrid. It yields abundance of Oil that is half exalted by the volatile Salt. If for Curiosity one would make a Distillation of it, in the first Place we shall find an ethereal Oil, then a yellow Oil, and at last a red Oil, such as is to be met with in Distillation of Turpentine. But as this white Balsam is a natural Drug so exalted, that it stands in need of no Assistance from Chymistry, it is much better to use it in its natural State. To know if this Balsam is true and fresh, pour some Drops of it into a Glass of Water, and it will spread itself delicately upon the Surface, and afterwards be easily collected together by the End of a Stick entirely from the Water; but if this Balsam be old, tho' it be true, it gains a firmer Consistence and Solidity, so that it does not swim or float upon the Water, but will precipitate to the Bottom.

This white Balsam is the most essential Part of the Tree, and is the most valuable Medicine to fortify the Heart and Brain. The Dose is from two Drops to five or six. And it is likewise given inwardly to deterge and consolidate Wounds, strengthen the Nerves, and to heal Ulcers of the Lungs, Consumptions, Catarrhs and Phthificks, so that there is scarce a better Thing in the World. The Ladies use it for a Wash, and mix it with a little Oil and the four cold Seeds, to soften the Roughness of the Skin; besides which, it takes away Pimples and Blotches in the Face. Some dissolve it in Spirit of Wine, or *Hungary* Water, and so mix it with Snail Water, or Bean Flower Water, to make a Virgin's Milk or Wash of.

[The Tree which produces the Balm of *Gilead*, is the *Balsamum Syriacum Rutæ folio*, C. B. Pin. 400. *Balsamum ab Aegyptiis Baleffan*, Alpin. Aegypt. 60. and the Wood and Fruit of the same Tree are the *Xylobalsamum* and *Carpobalsamum*. The true Balm of *Gilead* is a resinous Liquor which at first is of the Consistence of Oil of Sweet Almonds; but by Age loses its Smell, and sometimes its Colour, and becomes thick as Turpentine; when fresh, it has the Smell of Citron Peel.

M. Lippi, Embassador from *Lewis XIV.* of *France* to the Emperor of the *Abyssines*, being in *Egypt*, took great Pains to discover the Plant, and the Ways of procuring the Balsam from it; he found there were three Ways of collecting it, and that the three Liquors collected differ'd accordingly; the first, and finest, was catch'd as it flow'd spontaneously from the Tree; the second was procur'd by Incisions, and the third by boiling the Tops of the Trees, which first yield a very fine Balsam, and afterwards a coarser. The Balsam which flows spontaneously from the Tree is all sent

to the Grand Signor's Seraglio, the others are suffer'd to be exported.]

48. Of Balsam of Peru.

Pomet. WE sell at *Paris* three Sorts of Balsams by the Name of Balsam of Peru; to wit, The *White*, which is called, the Balsam by Incision; that in the Shell, which is called the *Dry Balsam*, and the *Black Balsam*. This first is a white Liquor, altogether like the *Bijon*, of which I shall treat in the Chapter of *Turpentine*, that distils from the Trunk and large Branches of certain Shrubs, whose Leaves are represented in the Figure of Balsam of Peru, which Tree grows plentifully in *New Spain*, &c. The second is the Balsam in the Shell, which drops from the Branches that are cut, at the Ends of which they hang Shells, to receive a kind of Milk that falls into them after the same manner as the Vines yield a clear Water. When these Shells are full, they place others in their room, continuing so to do 'till the Trees will yield no more; then they expose, or set these Shells, in hot Places for some Days, that the Milk may congeal or harden, and change its Colour. The third is the *Black Balsam*, which is made by boiling the Bark, Branches and Leaves of these little Trees in Water; after they are boil'd some Time, taking the Whole from the Fire, and gathering off the Fat that swims at Top, which is of a blackish brown Colour, and is what we call *Black Balsam of Peru*.

The first and finest Kind of all being that which distils from the Branches, is a hard Balsam, which, to have its requisite Perfection, ought to be reddish, the most fragrant and dry that may be. Its Use is as well in Medicine, as to make a Virgin's Milk abundantly more odoriferous than that which is made of *Benjamin* and *Storax*. Several Persons have assured me, that the Balsam in the Shell was a Composition of *Benjamin*, *Storax*, and Balsam of Peru, which I never could find to be true from several Trials that I have made. However, with this Balsam, and some other Drugs, is composed the Balsam of Monsieur the Governor of *Berne*, which I shall communicate to the Publick, because of its many great Virtues.

After that the Branches will drop no more they cut the Trunk, and from thence flows a white Humour, that is as clear as Milk; which, to be right and true, ought to be white, and as like the *Balm of Gilead* as may be. This Balsam is of no other Use, that I know of, but for Wounds, or to sell instead of the true *Opobalsamum*; though there is a vast Difference, in that the true *Opobalsamum* has a Citron Smell, which is not to be met withal in the white Balsam of Peru.

49. The Manner of making artificial Balsam of Peru.

I Have been inform'd by many Persons, that the *Black Balsam of Peru* is *Pomet.* a Composition made by the *Portuguese*, who sell it to the *Dutch*, in the following manner: Take fine Turpentine, white Frankincense, of each one Pound; Oil of *Ben*, *Olibanum*, *Labdanum*, *Gum Elemi*, of each six Ounces; Lavender Flowers and Nutmeg, of each four Ounces; Spikenard, Wood of Aloes, of each two Ounces; Myrrh, Aloes and Dragon's Blood, of each one Ounce and Half; the little Valerian Orrice, long Birthwort, *Acorus Verus*, Mace, Benjamin, Storax, of each one Ounce; Zedoary, Galangal, Cloves, Cinnamon, Castor, and Mastich, of each six Drams: Powder all the Drugs grossly, then melt the Turpentine, Frankincense, Gum Elemi, and Oil of Ben over the Fire, and when they are dissolved, incorporate the Powders; and when they are made into a Paste, put them into a Glass Retort, whereof one third Part is empty; and after it is well luted and dry'd, set it upon a Sand-Furnace; and when the Matter begins to heat, there will flow a clear Water, then an Oil of the Colour of Gold, at last a black Balsam, tending to red, which some would have to be what we sell by the Name of *Black Balsam of Peru*. The Water is proper to be taken inwardly, by those who have the Falling Sickness, Convulsions, Weakness of the Stomach, and to correct Wind. The Oil is good for the Palsy, Nerves that are wounded, Pains in the Joints, rubbing them with it hot. As to the Balsam, it has the same Virtues with that of Peru.

50. The Balsam of the Governor of Berne, given me by Mr. Pimodan, the King's Lieutenant of Toul in Lorrain.

TAKE dry Balsam of Peru, one Ounce; Storax in Tears, two *Pomet.* Ounces; Benjamin, three Ounces; Aloes Succotrine, Myrrh, Olibanum in Tears, Roots of *Bohemia* Angelica, Flowers of St. John's Wort, of each Half an Ounce; Spirit of Wine, one Quart; beat all together, and put them into a Bottle well stopp'd, which hang in the Sun in the Dog-Days.

The Virtues of this Balsam, according to the Original given me by the said Mr. Pimodan.

First of all, it is an admirable Balsam for all Kinds of Wounds; it is also excellent, given inwardly, in the Cholick, taking four or five Drops of it in a Glass of Claret. It is also sovereign in the

the Gout, applied to the Part affected, with a Feather or Cotton. For the Tooth-ach it is wonderful, apply'd to the Teeth with Cotton that has been steep'd in it. It cures all Sorts of Ulcers, Cancers and Shankers; cures the Biting of venomous Creatures and mad Dogs; is good to prevent the Marks of the Small-Pox, by rubbing the Pimples as they appear upon the Face. It is excellent for the Piles, Inflammations of the Eyes, Pains of the Stomach, and likewise to provoke the Terms, taken five or six Drops in hot White Wine.

Balsamum Peruvianum, seu Indicum, Lemery. or *Balsam of Peru*, is a natural Balsam, whereof there are three Sorts or Species. The first, call'd the *dry Balsam*, is a Sort of hard, reddish, fragrant Rosin, which is brought us in the Shell. [*Produced as describ'd in Pomet.*] The second is a liquid, white, smelling Rosin. And the third is a black, odoriferous *Balsam*, which is the the most common, and most in Use of all the others, as well in Physick as for Perfumes. It ought to be viscous, and of a Turpentine Consistence, of a blackish brown Colour, a sweet and agreeable Taste, having some Analogy to *Storax*. These *Balsams* are proper for the Brain and Stomach, to drive malignant Humours off by Perspiration, to deterge and heal Wounds, to strengthen the Nerves, and to resolve cold Tumours. The Dose from a Drop to four or five.

[The Tree which produces the *Balsamum Peruvianum* is the *Hoitziloxitl, sive Arbor Balsami Indici, sive Balsamifera*, Hern. 1. 51. *Cabureiba*, Pil. 57. *Hoitziloxitl Mexicanorum*, Jonsl. Dendr. 309. which grows in *New Spain*, and other Parts of *America*. The *Black Balsam*, which is almost the only Kind now in Use, is procur'd as describ'd by Authors, by boiling the Tops of the Tree; but the *White* is the Production of another Species of the *Peruvian Balsam Tree*: It flows by means of Incisions, from the *Hecactenex sive Balsamifera secunda*, Hern. 52. which grows plentifully in *Peru*.]

51. Of Balsam of Copyba, or Capiwy.

Pomet. THE *Balsam of Capiwy* is brought us two ways, to wit, in a clear Oil, and a thick. And this Difference arises only from the Difference of the Time in which it flows from the Tree; for that which comes first from the Incision that is made in the Tree, whose Figure is represented in the Plate herewith, is a clear Oil, that is white, and of a resinous Smell; and after that distils another Sort, that is of a golden Colour, and thicker, which gives it the Name of a *Balsam*. This is usually brought from *Portugal* in earthen Bottles, sharp and narrow at the End, in which is often found a Moisture,

which occasions it to separate, and makes this *Balsam* whitish like Curd. The Tree grows in many Parts of *Brasil*, as *Rio de Janeiro*, *St. Vincent*, and *Fernambouc*. The Natives know not a better Remedy for all Sorts of Wounds, than their *Colocai*; for so they call this *Balsam*: The *Brasilians* call it *Copaiba*, the *Portuguese*, *Gamelo*. It is a very admirable Medicine, both internally and externally used; being a Specifick in the *Gonorrhea*, and *Womens Whites*. The Natives found out the Virtue of this *Balsam* by means of certain Hogs in those Parts, who presently, when they were wounded, would strike their Teeth against the Trunk of these Trees, from whence the *Balsam* would flow out into their Wound; and this they would continue to do 'till they were perfectly well. The Wood of the Tree serves them to die red with, as well as that of *Brasil*.

Balsamum Copahu, Copau, Copalyva, Copais, Campais, Gamelo, or Balsam Lemery. of *Capiwy*; is a natural Balsam flowing from a Balsam Tree, about *Surinam* in the *West-Indies*, hot and bitterish to the Taste, of an aromatick Smell, and clear transparent Body, like *Venice Turpentine*, but equal in Goodness and Virtue to most other natural *Balsams*. It comforts and warms a cold Stomach and Bowels, dissolves and enters into the whole Mass of Blood, depurates it from all its Feculencies, is an admirable Vulnerary, and a very good Thing against the Scurvy; opens Obstructions, and provokes Urine powerfully: It strengthens a weak Back, stops Fluxes of all Kinds; in a Word, provokes Sweat, and cures most Diseases which are to be remedied by sweating, doing whatever any other natural *Balsam* or *Turpentine* will do. Dose from twenty Drops to forty, twice a Day.

[The Tree which produces the *Capiwi*, is the *Arbor Balsamifera Brasiliensis fructu monospermo*, Rai. Hist. 2. 1759. *Copaiba Brasiliensibus*, Marc. 130. *Copayva*, Pil. 56.

When the *Balsam* is new it is of the Consistence and Colour of Oil of Sweet Almonds, and smells like *Lignum Aloe*, but the Taste is pungent and bitter.

52. Of Balsam of Tolu.

BALSAM of *Tolu* is a Rosin that flows from the Trunks of Trees, by *Pomet*. means of cutting them. These Trees are found in great Quantities in a Province of *New Spain*, which is betwixt *Carthagen* and *Nombre de Dios*, call'd *Tolu*. The Balsam, as it flows from the Tree, is of the Consistence of *Turpentine*, and of a reddish brown Colour. The Inhabitants of those Parts tie at the Bottom of the Tree little Vessels made of the black Wax of that Country, or else a *Calabash*, to receive the Balsam;

sam ; which, after it is fallen, hardens, and becomes much about the Consistence and Colour of *Flanders Glue* newly made.

This Balsam is very scarce in *France* ; those who want it, procure it from *England*, where it is very common. Chuse that which is fresh, of a sweet penetrating Smell, like Balm of *Gilead* ; when it grows stale it becomes of the Consistence of the dry Balsam of *Peru* : This has the Virtues of the other Balsams, but more particularly is proper for internal Uses, not being in the least apt to vomit.

Balsam de Tolu is a balsamick resinous Lemery. Liquor, of a reddish Colour, inclining to that of Gold ; being of the Consistence of Turpentine, very clammy, and sticking fast to any thing ; when it grows old it grows dry and solid, and will break into Pieces almost like Alocs. It is of a very fragrant and pleasant Smell, reviving the Senses, much resembling the Smell of Lemons and Jessamine Flowers, but stronger, and not so faint and weak. It is more esteem'd than the Balsam of *Peru*, and reckon'd almost as good as the Balm of *Gilead*. It attenuates, dissolves, is pectoral and vulnerary. Outwardly it cures old Aches and Pains in the Head and Joints. It stops Catarrhs, helps Defluxions, strengthens the Weakness of the Bowels, discusses Tumours, and cures Contractions. It is used in the Tincture, Spirit, and volatile Oil, as the Balm of *Gilead*, &c.

[The Tree which produces the *Balsam of Tolu*, is the *Balsamum Provincæ Tolu*, *Balsamifera quarta*, Hern. 53. *Arbor Balsamifera Tolutana*, Jons. D. 308. *Balsamum Tolutanum foliis ceratiæ similibus, quod candidum*, Com. 626. The Balsam is brought in Shells from the Province of *Tolu* in *America*.]

53. Of the New Balsam.

Pomet. THE *New Balsam*, in Colour and Shape, is very like that of *Tolu*, but of a much less agreeable Smell. This Balsam is made after the same manner as the Oil of Bays, from little red Fruit that comes in Clusters, upon a kind of Tree, the Leaves whereof are very large and broad, green above, and greenish underneath, that grows in the *West-Indies*, especially in the Island of *St. Domingo*. This Balsam is so very scarce in *France*, that there is very rarely any of it to be seen.

[What was once called the *New Balsam* was the *Balsamum Ipecuæ*, drawn from the Fruit of the *Becuibá nux*, Geoff. 324. It was of great Esteem in *Brazil* for Palsies and Rheumatisms, and brought over to *England* as a great Remedy in such Cases, but it never came into Use here.]

54. Of Liquid Amber.

Liquid Amber is a Liquid Rosin, clear and reddish, which flows from the Pomet. Trunk of very thick and large Trees ; the Leaves whereof are like those of Ivy, and which grow plentifully in *New Spain*, where they are called *Oçocol*. The *Indians* cut the Bark of these Trees, which is large, and very thick, and so they afford a Rosin, which, when they have got a reasonable Quantity of, they send into *Spain*, where it is sold by Barrel, as they do fine Turpentine : It was once very common in *France*, though at present it is scarce. Chuse that which is clear, of a good Smell, inclining to that of Ambergrease, which gives it the Denomination, and of a pale Yellow. When it grows old it thickens, and is of a redder Colour. It is an exquisite Balsam for curing of Wounds, especially the *Fistula in Ano*.

We sell two Sorts of *Liquid Amber* ; the one in a thin clear Oil, which, for its Consistence, is call'd, Oil of *Liquid Amber* ; and the other in an Oil of the Consistence of Turpentine, which from thence is call'd, *Balsam of Liquid Amber* : But the Difference is no other than according to the Time the one or the other falls from the Tree ; for that which falls first is always the clearest, and so ought to be prefer'd to the other. As *Liquid Amber* is scarce, they make Use of Oil of *St. John's Wort* in its Place, which is made with the Flowers put in Oil Olive, and set it in the Sun during the Dog-Days. These Flowers give a fine beautiful red Colour to the Oil. Some People add, very properly, fine Turpentine and Saffron. The older this Oil is made, the more Virtue it has in it. Besides this, they make another Oil of a blue Colour, with Camomile Flowers, after the same manner as the former.

Lemery. *Liquid Amber* is a natural Balsam, or a Liquid Rosin, as that of Turpentine, clear, reddish, or yellowish, of a pleasant Smell, almost like Ambergrease. It flows by Incision from the Bark of a fine large Tree, that grows in *New Spain*, which the *Indians* call *Oçocol*, or *Ofocol* ; the Leaves resemble those of Ivy ; the Bark is thick, of an Ash-Colour, and very odoriferous. They gather this Liquid Rosin, and bring it to us in Barrels ; but sometimes they leave it to dry in the Sun, where it hardens like common Rosin. This Consistence makes it easier to transport than the other ; but the Smell is not fragrant, because the Heat of the Sun exhales some of the more volatile Parts. The Trees which produce the *Liquid Amber*, perfume with their fine Smell the Places where they grow. This *Liquid Amber* is an excellent Balsam, it mollifies and consolidates, is good against Hardness of the Womb,

Womb, Rheumatism, Sciatica, and Weakness of the Nerves.

[The Tree which produces the *Liquid Amber* is the *Styrax Aceris folio*, Rai. Hist. 2. 1848. *Styracem fundens vel Styrax arbor Virginiana Aceris folio*, Breyn. Prodr. 2. 84. *Acer Virginianum odoratum*, Herm. Cat. K. B. 641. It is common in *Virginia*, *New Spain*, and other Parts of the *West-Indies*, and is kept in the Gardens of the Curious here in *England*.

The resinous Juice flows either naturally, or by Incisions, in great Abundance; but there is also another Balsam procur'd from this Tree, by boiling the Twigs and Leaves, and taking off the oily Matter which swims at the Top. This is often sold for the true Balm of *Gilead*.

Some have imagin'd this to be Liquid Storax of the Shops; but that is an erroneous Opinion.

The resinous Juice was once much used in Perfumes, &c. but is now very seldom seen.]

55. Of Turpentine.

Pomst. **T**urpentine is a viscous, oily, transparent, resinous Liquor, that flows naturally, and from the Incisions that are made in the Trunks of several different Trees, as we shall see afterwards. We usually sell three Sorts of Turpentine; to wit, the Turpentine of *Chio*, the *Pine Turpentine*, commonly called *Venice Turpentine*, and the *Bourdeaux Turpentine*. There are several others besides these to be met with in the Shops, which are nothing else but Names given them, according to their Adulterations.

The first and the dearest of all the Turpentines is that of *Chio*, which flows from the Trunk and large Branches of a Tree of a moderate Size, called the *Turpentine Tree*, which grows in the Isle of *Chio*, in *Cyprus*, *Spain*, and *France*. These Trees bear deep green Leaves, with Flowers and Fruit, as expressed in the Figure.

As for the Turpentine of *Chio*, it ought to be of a solid Consistence, without any kind of Taste or Smell, of a White, inclining to a Green, and the least Subject to stick in the Teeth, or to the Fingers, that is possible; and take Care of the *Pine Turpentine*, which some sell, when boiled to a Consistence, for the true *Chio Turpentine*; but this Cheat is easily found out by its strong Smell, and because it sticks to the Teeth. This Turpentine is very little used because of its Dearness; but there are some curious honest Apothecaries who make Use of it upon most Occasions.

The second Turpentine is what we falsely call *Venice Turpentine*; this flows at first without Incision, from the Larch Trees, Pines and Fir Trees during the great Heats; and this Turpentine, or rather natural Balsam, which flows without Inci-

sion, is call'd by the *Lionnoise*, *Bijon*; but the little we have brought us is not worth speaking of, for the Merchants of that Country know how to dispose of it to better Advantage, in that they sell it for true white Balsam of *Peru*; which is quite contrary to what M. de Furetier observes, who says, that the *Bijon* is a Drug the Apothecaries substitute in the room of Turpentine, which is a great Error for many Reasons: First, because a Pound of *Bijon* is worth more than six Pounds of Turpentine. Secondly, because there are very few Apothecaries or Druggists in *Paris* that know what it is. And in the last Place, I believe, if we wanted ten Pounds of *Bijon* in *Paris*, we shou'd be at a great deal of Trouble to get it, whereas we might meet with many thousand Pounds Weight of Turpentine.

To return to what is call'd *Venice Turpentine*: When the poor People, who wait in the Fir-Woods, see that the Trees will drop no more of their own accord, that is, will yield them no more of the *Bijon*, they make Incisions in them, from whence flows a clear Liquor like Water, of a yellowish white, and that, as it grows older, thickens, and becomes of a Citron Colour. When they make their Turpentine Harvest, which happens twice a Year, to wit, in Spring-time and Autumn, they bring it to *Lyons* in Casks, or in Goat-Skins, to sell to the Merchants, of whom we buy it; hence we may be satisfied, that what is improperly call'd *Venice Turpentine*, is the fine Larch Tree, Pine or Fir Turpentine of *Lyons*. Choose that which is clear, and the whitest that can be got, and beware of what is adulterated with Resin and Oil of Turpentine, which may be easily known by its Colour, Smell and Consistence, and by wetting a Piece of Paper therein, and burning it: If there be any Addition of the said Oil, it will yield a black stinking Flame; on the contrary, if it is natural, it affords a resinous Smell, and will not burn away so quick. This Turpentine serves for many Uses, as well in Physick as for the Artificers, especially for making Varnish.

The third is the common Turpentine, to which some give the Name of *Bayonne*, or *Bourdeaux Turpentine*; this is white, and thick as Honey, and comes most from *Bourdeaux*, *Nantz*, or *Rouen*. This Turpentine flows not from the Trunks of Pines or Fir-Trees, as most People believe; but is made from a white hard Resin, which we call Incense, and the Mountainers *Barras*. As to the true *Venice*, *Cyprus*, or *Pisa Turpentines*, we have none brought us; what we sell by the Name of *Venice Turpentine* is, as I have said before, the Larch and Pine Turpentine of *Lyons*; for the *Cyprus* they substitute that of *Chio*; for the *Pisa*, the common Turpentine, mix'd with the Oil of Turpentine and a little Verdegrease, to give it a greenish Cast, which is very improper for

for many Reasons. The true *Pisa Turpentine* is of a yellowish White.

There are great Cheats in the Mixtures sold under the Names of the different *Turpentine*s, which it were well if there cou'd be some Way found to remedy, that sick People and Workmen, as well as Apothecaries and Surgeons, might not be imposed upon with artificial *Turpentine*s for the natural. As for the *Straßbourg Turpentine*, it rarely comes amongst us, but is frequently sold in *Holland* and *England*.

56. Of Common Incense, Rosin of the Pine-Tree, or Barras, and the different Preparations of it, Pitch, Rosin, &c.

Pomet. WE sell two Sorts of *Pine Rosin*, or *Incense*, one under the Name of *Galipot*, or common *White Incense*, and the other under that of *Marbled Incense*; these differ not but in Colour. The first, which is white, is a Rosin that flows by Incisions, that are made in the Pines, from whence it takes the Name of the *Gum*, or *Rosin* of the *Pine-Tree*; and when it flows in a fine Season it is neat and white; but when it takes a Part of the Bark, or other Foulness into it as it runs down, it is marbled or speckled; and when it is so, and good withal, the Hawkers sell it for Benjamin, though it is very different from it, in that the Benjamin is of a good Smell, and the *Spotted Incense* is extremely strong smelling; this is of no other Use, that I know of, but to sell instead of Benjamin, which in all Things, but Smell and Virtues, it very nearly resembles.

This *Pine-Rosin*, or *Common Incense*, is the Basis of many Things, as we shall see in Order. It ought to be chosen dry, clean, and as white as may be. They dissolve the *White Incense*, and put it into Barrels, or Half Barrels, which contain from three hundred and fifty, to seven hundred Weight, and send it us under the Name of the gross or common *Turpentine*, which ought to be clear, and as little Mixture in it as may be. As this *Turpentine* is a Rosin which is at Times more or less clear and thin, there are Barrels of this Commodity to be met with, where there are sometimes fifty Pounds of *Turpentine* as clear as Water, that swims at Top, which is frequently sold for *Venice-Turpentine*, but may be known by its Colour.

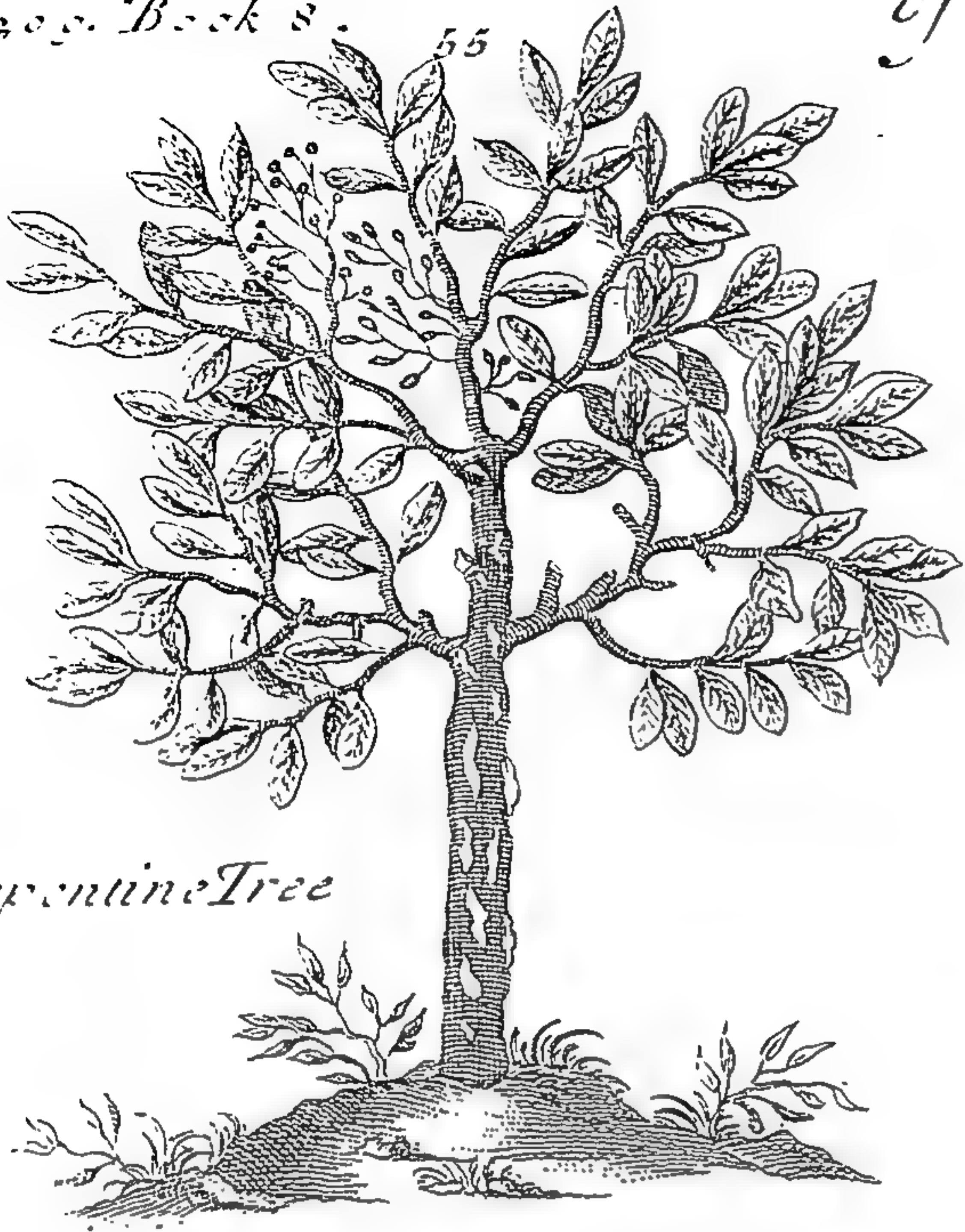
The common *Turpentine* is much in Use to make Ink for the Printers, as also for the Farriers, and to make coarse Varnish, which they do by melting common *Turpentine* with Oil of *Turpentine*; but this is a Composition they are forced to make in Places far from other Buildings, for Fear of Fire. They distil *Turpentine* in great

Alembicks, and there flows a Water first, then a white Oil, then a red Oil, which is a true natural Balsam for the Cure of Wounds. But as these white and red Oils are not much used, we do not deal in them; but instead thereof we have a very considerable Trade in the Oil drawn by the Alembick from the *Resin* or *Incense*, as it flows from the Tree. This Oil is made plentifully in the Forest of *Cuges*, about four Leagues from *Marseilles*, and in the Neighbourhood of *Bordeaux*. This Oil is what we call *Ætherial Oil*, Spirit, or Essence of *Turpentine*; that which remains in the Alembick, is what we call *Colophony*, or Black Resin.

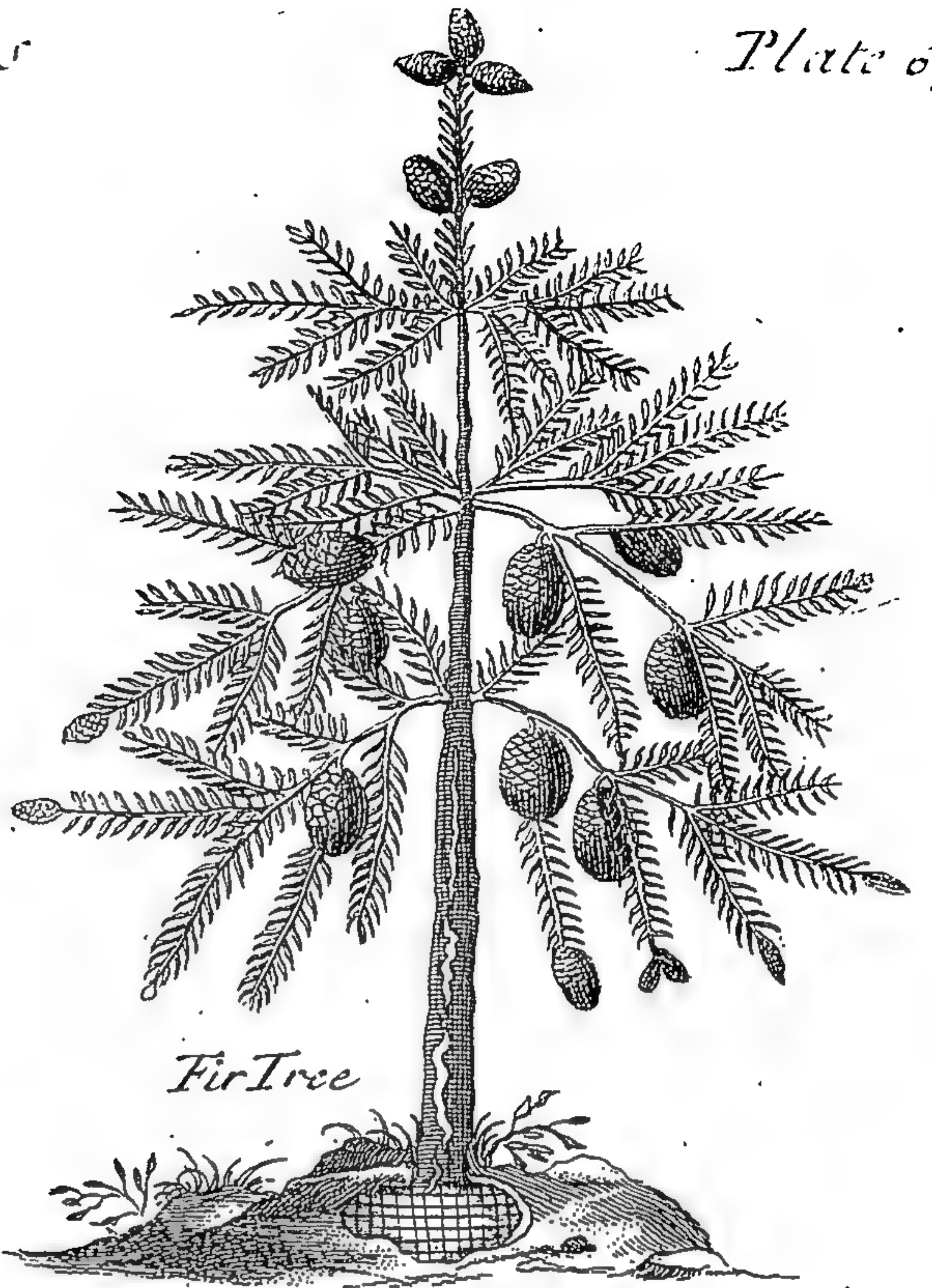
Oil of *Turpentine*, to be fit for Sale, and serviceable upon all Occasions, shou'd be clear and white as Water, of a strong penetrating Smell; yet this is a mischievous Commodity, and great Cheats are put on People in it, besides the Risque of Fire, and the little Profit there is got by it, which is the Reason why so many People will not deal in it. This Oil is useful for several Sorts of People; as Painters, Farriers, and others. It is likewise a true natural Balsam, and very proper for all Sorts of fresh Wounds. Several Persons have assur'd me, that the Oil of *Turpentine* which comes from *Marseilles* is made with aromatick Herbs, as Thyme, Rosemary, Lavender, and the like; and call'd Herb-Oil; but I cou'd never have this confirm'd to me by several Letters that I have receiv'd from *Marseilles*; but on the contrary, every one assur'd me that it was made with *Pine Resin*, or *White Incense* only.

They dissolve this *Resin* with a little Oil of *Turpentine* and some common *Turpentine*, and make what we call *Burgundy Pitch*; they pretend that the best is made at St. *Nicolas* in *Lorraine*, which is quite contrary to the Truth at this Day; for the best of this Kind comes from *Holland* or *Straßbourg*. It is observable, that this Commodity comes not but in private, or by stealth, being contraband. I believe that the Sort of white Pitch which we make in *France*, has more Smell, and is of a less Body, and whiter than that of *Straßbourg*, because we put in more Oil and *Turpentine*, and the *Dutch* use nothing but the Resin. The Difference may also, in some Degree, proceed from the different Climates. *Burgundy Pitch* shou'd be chosen clean, dry, and firm. The Use of this Pitch is for several Sorts of Work, and it is of some account in Physick, because it is attractive; but it is a very troublesome Plaister, sticking close to the Skin, but may be taken off with warm Oil, or Beer and Butter.

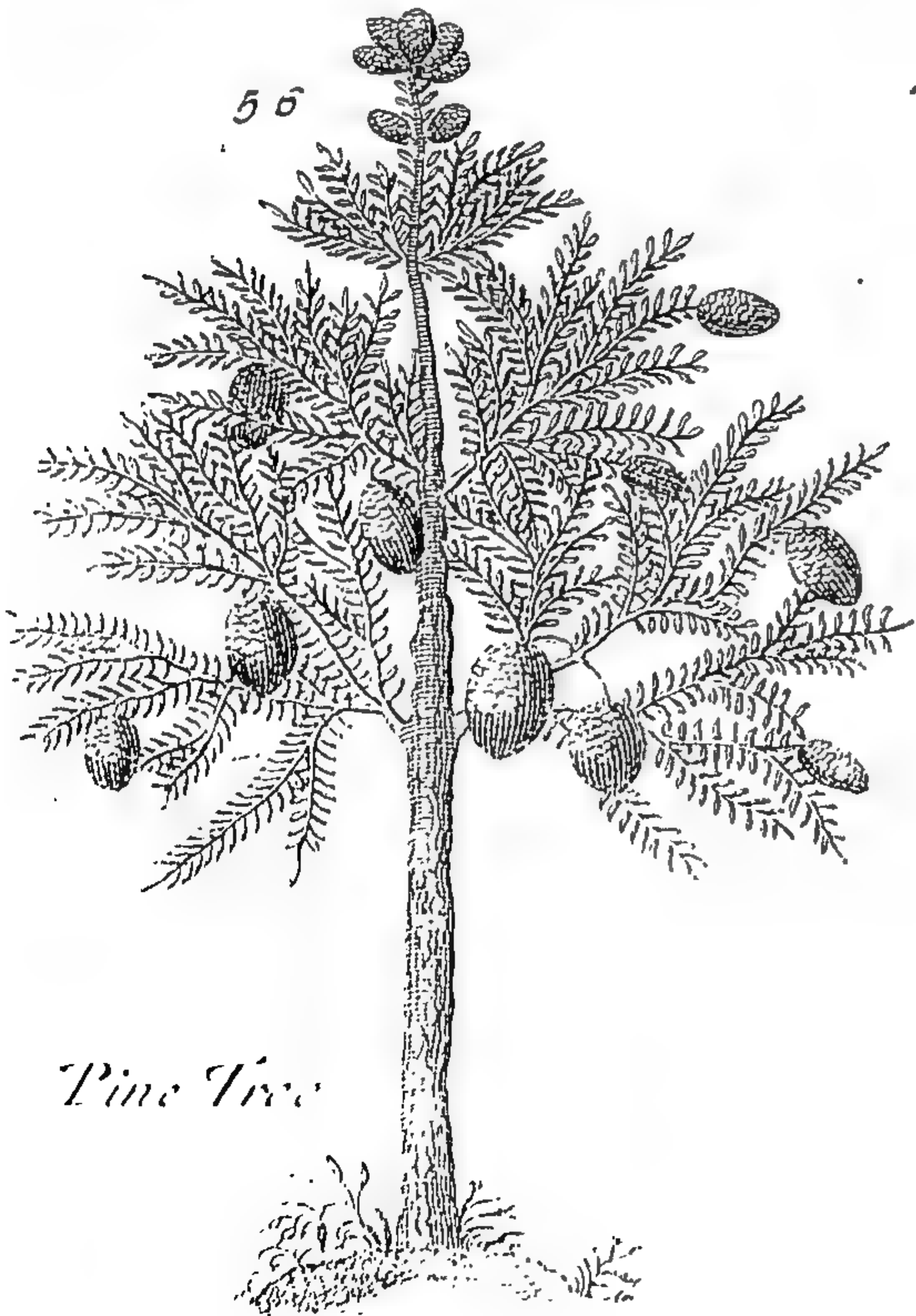
They make, besides this, with the *Pine Resin*, or *Common Incense*, boil'd to a Consistence, what we call common yellow Rosin; but that which we sell is gather'd at the Roots of the Trees; and



Turpentine Tree

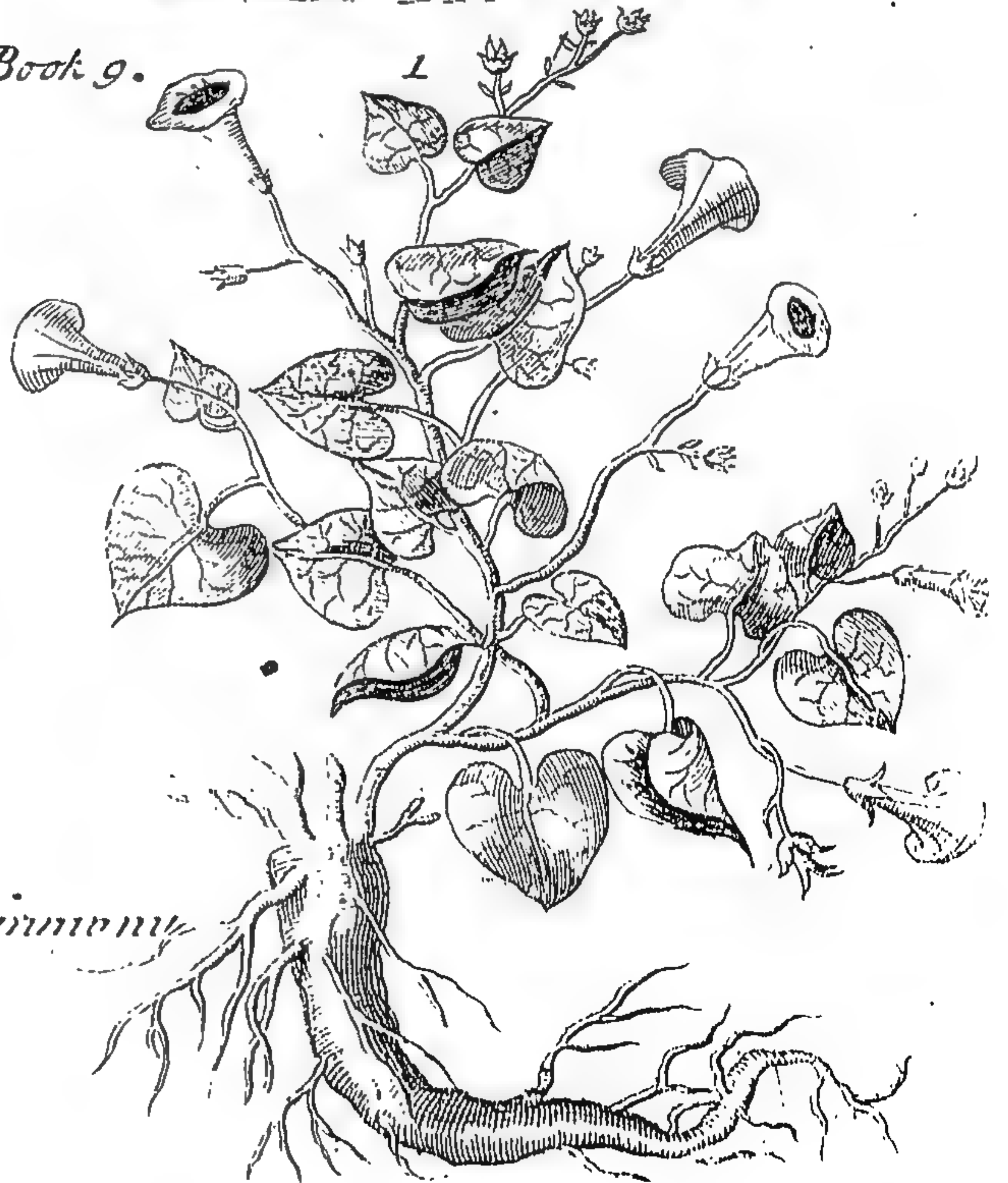


Fir Tree



Pine Tree

Book 9.



Scammony

and such as is dirty, after having melted it, is thrown into Vessels, to form it into large Cakes of an hundred Weight and upwards, such as we see it in. The fine Rosin comes from *Bayonne* and *Bordeaux*, which ought to be dry, fair, the least full of Sand that can be; this is much used in Ointments, Plaisters, &c. They also make of this *Resin* or *Incense*, what we call in *France* *Dry Pitch*, by boiling it 'till it is almost burnt; but the most of this which we have is the Remainder found in the Alembicks after the Oil of Turpentine is distill'd: It ought to be clear and dark colour'd.

This, which we commonly, but improperly, call *Colophony*, is also of some Use in Physick, but more abundantly for several Sorts of Works: they throw this, while hot, into a sufficient Quantity of Tar, in order to give it a black Colour, and then it becomes what we call *Black Pitch*, of which we have two Sorts, which differ only according as they are hard or soft. The best *Black Pitch*, as well as *Tar*, is what we have from *Norway* and *Sweden*, but especially from *Stockholm*. We sometimes make *Black Pitch* in *France*, but it is nothing so fine as that of *Stockholm*. The Uses and Virtues of this are so well known, it wou'd be very trifling to insist upon them. There is drawn from *Black Pitch*, by Means of a Retort, a reddish Oil, which for its Excellence is call'd Balsam, or Oil of *Pitch*. This is a very good Balsam, and is pretended to be equal to the natural Balsams.

They melt *Black Pitch*, and afterwards dip a Wick of Flax, Hemp, or the like in it, which they sell by the Name of Links.

There is another *Black Pitch*, which the Antients call *Zopissa*, and which is properly what the Mariners use to pitch their Vessels with. This *Zopissa* is a Composition of *Black Pitch*, Rosin, Suet and Tar melted together; and this is, as some say, the true *Pix Navalis*, which the Apothecaries ought to use, but few of them give themselves the Trouble to enquire after it, the common *Black Pitch* always supplying its Place.

57. Of Tar, or Liquid Pitch.

THIS is a clear fat Liquor that flows from the Trunks of old Pines.

When they wou'd kill or destroy the Tree, the *Swedes* and *Norwegians* cut the Bark round the Tree, which, instead of yielding a white Incense or Resin, yields a black Liquor, which is the *Tar*; and presently, as soon as all that is fallen, the Trees die, and are good for nothing but to burn.

This may help to undeceive several who believe, as many Authors have vouch'd, that *Tar* is made by burning of the Pines; for it is certain

that all the *Tar* we now sell is made as already mention'd, and not by Means of the Pines that are burnt. That which is found clear, is improperly call'd Oil of Pitch, and sold under the Name of common or false Cade Oil. The *Tar* is much used by the Mariners, Farriers, and Shepherds, to mark their Sheep, as well as to defend them from Diseases. Chuse such as is natural and clean, not such as is made with Oil and Pitch, but the true *Stockholm Tar*.

It is generally brought to us from *Denmark*, *Norway*, *Finland* and *Swedeland*; but there is much of it made in *New-England*, *Virginia*, *Carolina*, and other Parts of *Florida*. It is the Produce of all resinous Trees. It was first taken from the Cedar, the Larch-Tree, Fir-Tree, and Pitch-Trees; but now chiefly from the Pine-Trees. It cures all Sorts of Scabs, Itch, Tetters, Ringworms, and other Vices of the Skin. *Tar* is better than Pitch, because in boiling the Pitch loses the more subtil and fiery Parts; this therefore is proper for Coughs, Phthysicks, Hoarseness, and other Humours that fall upon the Lungs. *Tar* and Bees-Wax make a Plaister that is discussive and anodyne, good against the Gout, and all Manner of old Aches and Pains. The Spirit is very diuretick, opens all Obstructions, and resists the Scurvy.

[What we call Lamp-Black is made by burning the foul Parcels of Pitch, Resin, &c. and gathering the light Soot that they send up; this is much used by Artificers of various Kinds.]

58. Of Colophony, or Rosin of Turpentine.

THE true *Colophony* is made of fine *Turpentine* boil'd in Water 'till it comes of the solid Consistence of *Rosin*, by which Means it is made portable. They ought to be undeceiv'd who believe it to be the dry brown *Pitch*, since the true *Colophony* is the *Turpentine* of the Pine-Wood, made hard by boiling. One may know when this *Turpentine* is boil'd enough, by taking it out of the Water, and seeing that it hardens and is brittle; this is what the Apothecaries call boil'd *Turpentine*; they heat and make it into Pills, with Liguorish Powder, for Venereal Disorders.

It is call'd *Colophony*, as said by some, from a Town in *Ionia*, call'd by that Name, from whence it first came. It is clear, yellow, or black, and when dry, brittle; and therefore will easily beat to Powder. Chuse that which is clear and sweet, and which being burnt smells like Frankincense. Some is made in *England* from *Turpentine* distill'd; for after the Oil of *Turpentine* is drawn off, the *Colophony* or *Rosin* remains

mains at Bottom ; the less Oil you draw off, the whiter you have your Rosin ; the more Oil, the blacker is the remaining *Colophony*.

It is emollient, glutinative and healing, given inwardly it strengthens a weak Body, eases Pain, helps Ulcers in the Reins, Bladder, or Neck thereof ; gives Relief in the Gout, fills Ulcers with Flesh, and skins a Sore. Given inwardly in Powder, from one Dram to two Drams, it cures the running of the Reins in Men, and the Whites in Women, and takes away the Weakness and ill Temperament of the Womb.

59. Of Varnish.

Pomet. WE sell six Sorts of *Varnish* ; to wit ; the first, the *Drying Varnish*, which is made of Oil of Spike, fine Turpentine, and Sandarac melted together. The second is *White Varnish*, call'd *Venetian Varnish*, which is Oil of Turpentine, fine Turpentine and Mastick melted together. The third is *Spirit Varnish*, which is composed of Sandarac, White Karabe, Gum Elemi and Mastick, with Spirit of Wine. The fourth is *Golden Varnish*, which is made of Linseed Oil, Sandarac, Aloes, Gamboge, and Litharge of Gold. The fifth is *China Varnish*, which is made of Gum Lac, Colophony, Mastick in Tears, and Spirit of Wine. The sixth is *Common Varnish*, which is nothing else but common Turpentine dissolv'd in Oil of Turpentine, as observ'd, speaking of Turpentine, before. There is another *Varnish*, which some of the Religious make ; but as we do not deal in it, I shall not trouble myself or the Reader about it. As to the Manner of making, and Quantity of each of the Ingredients, every one does it as he likes ; but in the making it People must be very careful of its taking Fire ; and another Caution is, that the Ingredients be all good in their Kinds, for there is no being too nice in the making it.

Terebinthina or Turpentine, is a *Lemery.* liquid Rosin, or a viscous, gluey, resinous, oily, clear transparent Liquor, having the Consistence and Quality of natural Balsams, which they draw by Incision, or without Incision, from several Sorts of Trees that grow in the hot Countries, as Pine, Fir, &c. We use two Sorts of Turpentine in Physick ; the first is call'd *Chio Turpentine*, because it is produced in the Isle of *Chio* : This is the most esteem'd and dearest ; but it is scarce. It flows by the Incisions made on the Trunk and large Branches of the Turpentine Tree. Its Consistence is thick and pretty hard. Chuse the cleanest, most transparent, and of a whitish green Colour, having little Smell, and being almost of an insipid Taste.

The second Sort is call'd clear Turpentine ; it is abundantly more liquid or thin, finer or more fragrant than the former : It flows without cutting, and likewise with cutting, from the same Sort of Trees, but is brought us from *Dauphiny*, &c. That which flows without Incision, is by the Peasants of the Country call'd *Bijon* : It is a Sort of Balsam that is of a Consistence, Colour and Virtue, almost like that of White Balsam of *Peru*. The Turpentine that flows by cutting, is that usually call'd *Venice Turpentine*, which, tho' none of it comes from thence, but from other Parts of the Country, is the most commonly used in Medicine, being close, neat, clear, fine, white and transparent, of the Consistence of a thick Syrup, of a strong and unpleasant Smell, and the Taste something bitter. All the Turpentine yield a great deal of Oil, volatile, acid, or essential Salt. They are very aperitive, proper for the Stone and for Cholicks, Ulcers of the Kidney and Bladder, Retention of Urine and Gonorrhœa. Dose from half a Dram to a Dram. It gives the Urine a Violet Smell, and creates, sometimes, Pain in the Head.

The true Turpentine is nam'd *Terebinthina*, because it flows from a Tree call'd *Terebinthus*. That which flows from other Kinds of Trees is call'd by the same Name, from their Resemblance. The Turpentine Tree is the *Terebinthus*, *vel Terebinthus vulgaris*, the common Turpentine Tree, *Terebinthus angustiore folio vulgarior*, or the more common Turpentine Tree with the narrow Leaf, is a Tree of a middle Size, as to its Height, cover'd with an Ash-colour'd Bark : The Leaves are oblong, firm, always green, like the Bay, but much smaller, rang'd severall on a Side, which end in a single Leaf ; the Flowers are disposed in purple Clusters, full of Stamina or Threads, that are charg'd on their Tops with Apis. The Flowers leave no Sort of Fruit after them, the Fruit rising upon Stalks that bear no Flowers ; they are thick Shells, like Juniper Berries, pretty hard, viscous, or resinous to the Touch : of a greenish blue Colour, tinging the Hands, each of them inclosing an oblong Seed ; this Tree is very resinous, and the Wood hard, like that of Lentisk. It bears often also, like the Elm, a Bladder or Bag, fill'd with a fat Liquor, where Flies engender. It grows in the Isle of *Chio*, *Cyprus*, *Spain*, *Languedoc*, *Dauphiny*, and other warm Countries ; and when it is pretty full of Turpentine, and no Incisions are made, the Rosin of the Turpentine grows thick, hardens, and produces Obstructions that stop the Course of the Circulation of the nutritious Juice ; then the Tree falls into a Kind of Suffocation, for it swells and bursts. To prevent this Accident, they make Incisions or Slashes, at the Bottom of the Trunk of the Tree, which is like bleeding in the Foot ; by which they make the Turpentine flow, which.

which before caused so great a Repletion. They likewise cut the Trunk and other large Branches of the Tree, which has the same Effect as bleeding in the Arm; and under these they place Earthen, or other Vessels, to receive the Turpentine that flows. This Tree affords a great deal of Oil and essential Salt. The Bark, Leaves and Fruit are astringent, and proper to stop the Gripping of the Guts, and to provoke Urine, &c.

[There are four different Turpentine in the Shops, produced by four different Trees; the true and exact Account of which is, That the first of them, the *Chio Turpentine*, is produced by the *Terebinthus vulgaris*. C. B. Pin. 400. *Terebinthus*. J. B. 1. 387. Rai. Hist. 2. 1577, &c. which grows common in the Islands of *Chios*, *Cyprus*, and some other Places.

The second, the *Venice Turpentine*, is produced by the *Larix folio deciduo conifera*. J. B. 1. 265. *Larix*. R. Hist. 2. 1405.

The third, the *Straßbourg Turpentine*, is produced by the *Abies Taxi foliis*. Rai. Hist. 2.

1394.. *Abies Taxi folio fructu suefum spectante*. Tourn. Inst. 585.

And the fourth, the common Turpentine, is made from the Resin of the *Pinus Sylvestris*. Ger. 1175. *Pinus Sylvestris vulgaris Genevensis & Tæda*. J. B. 1. 253.

The Rosins and Pitch of different Kinds, and Tar, are made from the Rosin of the *Picea major prima sive Abies rubra*. C. B. Pin. 493. *Picea Latinorum sive Abies mas Theophrasti*. J. B. 1. 238. The Common Rosin by boiling it in Water to a due Hardness; the Tar, by burning the Wood of the Tree in a Furnace; the Common Pitch by boiling Tar in proper Vessels to a Consistence; the Dry Pitch by boiling the same Mass higher still; and the *Burgundy Pitch* by the same Preparation as the Common Rosin, only, instead of letting it boil to that Hardness and Consistence, it is taken out of the Water as soon as it begins to boil. All these Preparations may also be made from other Species of the Fir, Pine, and Cedar; but the most and best are from this Species.]

The End of the Book of G U M S.

BOOK the Ninth.

Of JUICES.

P R E F A C E.

THE Word Juice signifies a liquid Substance, which makes up a Part of the Composition of Plants, and which communicates itself to all the other Parts, to serve for their Nutrition and Growth; this Juice is to Plants what the Blood is to Animals. The Word Juice is also understood to express a thick Liquor which is drawn from Vegetables, or the Parts of them, and, by the Means of the Sun, or Fire, reduced into the Consistence of a liquid Electuary, or solid Extract, in such a Condition as to preserve or keep for a considerable Time. I don't pretend to speak of the liquid Juices, but only of such as are thus prepared, and which we trade in. I shall begin with Scammony, as being the dearest Juice, and most used of any we have, and in which are committed the greatest Abuses.

1. Of Scammony.

Pomet. **S** CAMMONY is a thicken'd Juice of the Root of a Plant that creeps along Trees and Walls, whose Leaves are green, and

made in Form of a Heart; after which come white Flowers, shap'd like Bells. This Figure of the Flower is the Reason why some write that the Scammony Plant is a Kind of *Volubilis*, or *Bindweed*; but however that be, the Scammony we now sell is the Juice thicken'd by Assistance

of the Fire, drawn by Expression from the Root of the said Plant, that grows plentifully in several Parts of the *Levant*, but especially about *Aleppo* and *St. John d'Acre*, from whence the best *Scammony* is brought us, which, when right, ought to be true *Aleppo*, light, grey, tender, brittle, resinous, and when crumbled between the Fingers will appear greyish, with a bitter Taste and a faint unpleasant Smell; reject such as is heavy, hard and blackish.

As to those who purchase great Quantities of *Aleppo Scammony*, let them take care that it be the same within as without; for I can assure them I have seen in *Scammony*, Pieces of Wood, Coal, &c. put into the Middle, so that there has not been above the Thickness of one's Thumb of fine *Scammony*. I make no doubt but the *Levantine* roll up in the *Scammony* they make, Charcoal, Stones, and other foreign Bodies which we meet with in it, either by Chance or designedly, and afterwards cover it with a Paste of fine *Scammony*, after the same Manner as the Sealing-Wax-Makers do their bad Wax, as mention'd in the Chapter of *Gum Lac*.

It is easy to judge by this Description, that *Scammony* is not made by the Heat of the Sun, as several believe: Besides, a Friend of mine, a Surgeon at *Marseilles*, who dwelt a long Time at *Aleppo*, confirm'd me in what I have here related. They make from the *Aleppo Scammony*, by the Help of Spirit of Wine, according to Mr. *Lemery's* Prescription, a Rosin of *Scammony*, which has more Virtue than the *Scammony* itself; but as this is dear, and there is but little Consumption of it, I shall not trouble myself to say any thing more of it. *Scammony* is, with good Reason, call'd one of the Pillars of Physick; for it is one of the most famous Catharticks, or Purgers, in the World, admitting of various Preparations: As, 1st, *Diagrydium*, or *Scammony* prepar'd and corrected with the Juice of Quinces. 2^{dly}, *Scammony* sulphurated. 3^{dly}, *Scammony* vitriolated. 4^{thly}, Extract of *Diagrydium*. 5^{thly}, Extract of *Scammony*. And, 6^{thly}, Syrup of *Scammony*, which is made with Sugar and Spirit of Wine over a Fire. Besides which, we have the *Cornachine Powder*, made of *Scammony*, Cream of Tartar, and Antimony diaphoretick. All the Preparations of *Scammony* are prevalent against old contumacious Diseases, such as Gout, Scurvy, Dropsy, Rheumatism, Obstructions, Head-achs, Apoplexies, Relicks of the Venereal Disease, &c. *Scammony* is not proper to give in Fevers, or to old and weak Persons, Children, or breeding Women, being sharp and biting, and apt to inflame, by reason of its acrid Quality. This following gentle Preparation of *Scammony* may be given almost in any Case, or to any Constitution, being a Marmalade of *Scammony*. Take *Scam-*

mony and Turbith, of each four Ounces, make an Extract with Spirit of Wine, add this to six Pounds of Marmalade of Quince, which hath not above one Pound and a half of Sugar in it.

2. Of Smyrna Scammony.

BESIDES the *Aleppo Scammony*, we sell, tho' very improperly, a black, *Pomet.* heavy, softish *Scammony*, that is full of Stones, Shells, and other strange Bodies, in a Word, the very Reverse of *Aleppo Scammony*; for which Reason it ought not to be meddled with, any more than the grey, light, brittle Sort, that is nothing else but a Composition of Rosin mix'd with some violent Purgatives, in order to promote the Sale of it. I think myself oblig'd, in order to set the Publick right in this Matter, to let them know that the great Cheats committed this Way, in sophisticating of Medicines or Drugs, are not done by the Generality of Merchants, or the wholesale Dealers, but the little retail Traders, who impose their pernicious Commodities upon honest well-meaning People, without Honour or Conscience. And to shew the Malignity of some of these ill Drugs, I shall here give you the Certificate of M. *La Tour*, Physician of the Faculty of *Montpellier*, upon the Subject of *Scammony*.

“ It happen'd, as I was preparing half an
“ Ounce of a Drugg that was sold to me for
“ *Scammony*, that after the Preparation was done
“ the Syrup turn'd of a green Colour, like the
“ Juice of Herbs, which made me think the
“ Drug was naught: Experience confirm'd me
“ in this Opinion; for having given some to a
“ little Dog, his Body swell'd up, and he re-
“ main'd sick five or six Days, without ever
“ purging at all.

Sign'd 16 Sept. 1693.

De la Tour, Physician at *Montpellier*.

Scammonium vel Scammonia, or *Scammony*, is a concrete resinous Juice, or *Lemery.* a greyish brown Gum, that flows by Incision from the Root of the great exotick Bindweed, call'd *Convolvulus Syriacus*, and *Scammonia Syriaca*, according to *Morison* and *Tournefort*, the *Syrian* Bindweed. This Plant bears several long Stalks, winding, creeping, and clinging to and about the adjacent Shrubs. The Leaves are large, pointed and triangular, in the Shape of a Heart, smooth, of a fine Green, hanging upon short Stalks. The Flowers grow in the Wings of the Leaves, in Form of Bells, of a purple or a whitish Colour, fair and pleasant to the Eye. When they are gone, a Fruit that is almost round and membranous succeeds them, containing in its Cavities black corner'd Seeds. The Root is long
and

and thick as one's Arm, of a greenish brown without and white within, supply'd with Fibres, full of a white milky Juice, as all the Plant is, and of a strong Smell. It grows plentifully in several Parts of the *Levant*, but especially about *Aleppo*, in fat Land. When the Juice is taken from the Root, they thicken or inspissate it by the Heat of the Fire, to give it a solid Consistence.

The best is clear, like Gum or Rosin, thin, quickly dissolving, friable, not very heavy, of a greyish black, turning white or milky by the Touch of the Tongue, and not much inflaming it. The thick, heavy and very black, is either the Juice of the whole Plant, or adulterated; if the latter, it is commonly done with the Juice of Tithymal, which you may easily know by its Heat, and its Mixture with other droffy Substances. It is strongly purgative, evacuates bilious, acrid, serous, or melancholy Humours. The Dose from four Grains to sixteen.

[The Plant which produces the *Scammony* is the *Convolvulus Syriacus* & *Scammonea Syriaca*. Hist. Ox. 2. 12. *Scammonea Syriaca legitima*. Park. 163. The *Aleppo Scammony* is much preferable to the *Smyrna*; but at best it is alone a very uncertain Purge, sometimes not operating at all, and sometimes causing fatal Hypercatharses; and what is very remarkable is, that it often does not operate at all the first Day, but brings on afterwards an unsupportable Hypercatharsis and Tenesmus.

The *Pulvis Cornachini* is an admirable Preparation of it and has all its Virtues, which are very great, without any of its Danger.]

3. Of Opium.

OPIUM, which the *Turks* call *Amphiam*, and the Antients *Meconium*, is a Liquor white as Milk, that flows from the Head of black Poppies, by the Help of Incisions made therein. This Liquor being dropp'd from the Plant, grows thick, and changes its white Colour into brown; and this is the true *Opium*, which is in such Use among the *Turks* that they subsist by it sometimes for two Days, without taking any other Nourishment. And when they go to fight they take it to excess, that it may animate them, or at least make them out of their Senses, and so insensible of Danger.

It is a partly resinous and partly gummy Substance, blackish and soft while new, but hardening with Age; got by Incision from the Heads of white seeded Poppy, and form'd into a Mass; of a subacrid bitter Taste and strong unpleasant narcotick Smell.

The Liquor, as it flows from the Incisions, is white, but blackens in drying. There are two Kinds of it, the *Thebian* and *Indian*; but they

are both produced by the same Species of Poppy, and only differ according to the Difference of the Places where they grow.

The *Indians* prefer the *Bengal Opium* to the *Theban*; but we always account the *Theban* better than the *Indian*.

The true *Opium* is in small Tears, like *Mastich*, but of a darker Colour.

There is another Sort of *Opium* that flows from the Head of the black Poppies, without any Incision, and which, in falling, coagulates and grows brown by the Heat of the Sun; and it is this concreted Juice which properly ought to be call'd *Opium*; for the Word *Opium* is derived from the *Greek* Word *Opon*, or *Opon*, which signifies Juice.

There is also a third Sort got by Incision from the Heads of the white Poppies. This Juice thickening, as that of the Black, is call'd by the *Turks* *Measlack*. But as these three Sorts of *Opium* do never reach us, I shall proceed no further with them, but only describe that which is brought us. That which we call and sell for *Opium* is a blackish Mass, which the *Turks* and the People of the *Levant* send us, and is a Juice made by Expression from the Heads and Leaves of Poppies, reduced to the Consistence of an Extract by the Help of Fire, and then form'd into Cakes of different Sizes; and, to render it carriageable, is wrapp'd up in Leaves, as we have it now brought to us.

There is another *Opium*, which the *Turks* make from the Juice of a Plant they call *Glau-cium*, which is like our horned Poppy; this they mix with the Juice of Poppies, and make a Mass together. It is so true, that the *Opium* we now sell is no other than the Juice by Expression, and not the Juice which flows naturally from the Poppy Heads, that the very Price they often sell it at, is alone a sufficient Proof of it.

With all the Diligence I have been capable to make use of, I have not found it possible to meet with white *Opium*, notwithstanding what some modern Authors have affirm'd; and I cannot believe, indeed, that they have ever seen any: It is probable that the *Opium* flows from the Heads of Poppies white like Milk, but it must change its Colour by being exposed to the Air as it hardens; therefore I think myself oblig'd to detect the Errors of these People, and let the Publick know the Truth of Things, and that such Authors only write from the Relations of other Men.

As to the black, hard, yellow, or soft *Opium*, it is no Novelty to meet with any of them, because there is scarce a Cask or Barrel of *Opium* where there is not black, and yellow, and hard, and soft to be met withal; for every Body knows that the thicker and older any Juice is, the more it will blacken. If it is yellow, it is owing to its be-
ing

ing over-boil'd and dry'd. And as to what they say, that the White comes from *Grand Cairo*, and that the *Turks* keep it for themselves, I have enquir'd of People that have liv'd a long Time there; but they all have affirm'd, that the *Opium* they saw at *Grand Cairo*, and which the *Turks* use, is brown.

The Opinion of M. *Furetiere* ought to be rejected, when he says that *Opium* is made by beating the Juice in a Mortar; and when it is thick-en'd forming it into Troches. Raw or crude *Opium* is not much used in Physick; but the Extract, which is made by Water or Spirit of Wine, as directed by Mess. *Charas* and *Lemery*, which is what the Apothecaries call *Laudanum*. There is another call'd *Laudanum Opiatum*, which is a Composition of *Laudanum*, Extract of Saffron, Magistery of Pearl and Coral, Oil of Cloves, Karabe, Musk and Ambergrease; the Whole being compos'd into an Electuary; but as this is made in the Apothecaries Shops the Druggist has no Trade with it. Some make an Extract about *Paris*, and other Places, from black and white Poppy Heads, which they call simple *Diacodium*, to distinguish it from the Compound. Besides which, there is a Syrup of *Diacodium*, which every Apothecary's Shop is furnish'd with.

There are several famous Preparations besides, as *Crollius's* Extract, that of *Opium* with *Henbane*; *Quercetanus's* Extract of *Opium*; *Hartman's* *Laudanum*; *Paracelsus's* specifick Anodyne; Pills of Hound's-Tongue; Pills of *Storax*, *Philonium Romanum*; liquid *Laudanum*; that of *Paracelsus*, of *Helmont*; *Willis* and *Sydenham*; *Schroder's* *Laudanum* with *Storax*, is made as follows: Take *Opium* dry'd on a hot Plate, two Ounces; *Storax Calamita*, *Labdanum*, of each one Ounce; Oil of Cloves, thirty-two Drops; mix them in a hot Mortar, and make Pills as big as Pease, from three Grains to five. *Opium* is narcotick, hypnotick and anodyne; it composes the Hurry of the Spirits, causes Rest and Insensibility, is comfortable and refreshing in great Watchings and strong Pains; provokes Sweat powerfully; helps most Diseases of the Breast and Lungs; as Coughs, Colds, Catarrhs and Hoarseness; prevents or allays spitting of Blood, Vomiting, and all Lasks of the Bowels; is specifick in Cholick, Pleurifies, and hysterick Cases. Dose, from half a Grain to three or four.

The true *Opium* is a gummy Tear *Lemery*. that flows from the Head of the *Egyptian* and *Grecian* Poppies; but now we sell none of the true Sort, because the *Turks* keep it from us, and will not permit the Transportation of it, but send in its Stead the *Meconium*, which is a Juice made by Expression from the Heads and Leaves of the same Poppies, and reduced by Evaporation to the Consistence of an

Extract. They make it into Cakes in different Sizes, and wrap it up in the Poppy Leaves to keep it moist: This we improperly call *Opium*; it has not the fine Virtues of the true Kind, but is answerable to it in some Degrees.

The best is heavy, compact, clean, viscous, of a blackish brown, inclining to a red Colour, bitter, and a little acrid to the Taste. The most esteem'd is that of *Thebes*, that is brought from *Aleppo* and *Smyrna* in *Turky*, 'wrapp'd up in Leaves; the other from *Persia* and *Surat* in the *East-Indies*, being far inferior to the *Theban* or *Turky* Sort, not having so strong a Smell, nor being any thing so clean. That which the *Turks* use they gather from the white Poppy gently cut; and they take it daily from half a Dram to a Dram, to enliven them and raise their Spirits.

Authors make three Sorts of it; as *First*, The pure, from *Cairo* or *Thebes*. *Secondly*, The black and hard from *Aden*. *Thirdly*, The yellow and softer Sort from *Cambaia* and *Decan* in the *East-Indies*. Yet we generally, at this Time, reckon but two Sorts, viz. the *Turky* or *Theban*, which is weighty, of a good Consistence, thick, and more solid than the *Indian*; of a lively, fresh, reddish Colour, almost like fresh Aloes, of a strong poppy Scent, of an acrid bitter Taste, that will burn and flame; soft, easy to cut, and be dissolved either in Water, Wine, or Spirit of Wine, and is pretty clean from Dirt, Recrements or Filth. *Secondly*, The *Indian Opium*, which is softer, yellower, lighter, not of so good a Body, and much fouler, being in every respect inferior to the former.

It is proper to allay fermenting Humours, to excite or procure Sleep, to calm or appease Pain, to stop Looseness and Vomiting, to provoke Sweat; and is good in Inflammations of the Eyes and Tooth-ach. Dose from half a Grain to two Grains. *Opium* procures Rest, by its viscous and sulphureous Particles, which being convey'd into the Channels of the Brain, by the volatile Parts, agglutinates and fixes the animal Spirits, in such a Manner, that it stops, for some Time, their Circulation from the Swiftmess of their former Motion; so that during that Obstruction, or Tye upon the Spirits, Sleep ensues; for the Senses are, as it were, fetter'd, or lock'd up, by the viscous or agglutinating Property of the *Opium*.

[*Opium* is the concreted Juice of the *Papaver hortense*, *semine albo*, *sativum Dioscoridi*, *Album Plinio*. C. B. Pin. 170. R. Hist. 1. 853. *Papaver simplex Album sativum*. Park. 365. *Papaver hortense simplex semine albo*. Hist. Ox. 2. 275. The *Greeks* distinguish'd two Kinds of *Opium*, one got by wounding the Head, the other by Expression; both Kinds we have in *England*, but the first is much the best and scarcest, and is the same which the *Turks* now use. It is sold in the
Empire

Empire of the Great Mogul as commonly in the Shops as Tobacco is with us. Its Effects are always narcotick, whether used externally or given internally; given in Clysters it operates quicker than taken at the Mouth; apply'd to the Eyes and Ears it has caused Blindness and Deafness; and a Plaister of it on the Head has occasion'd Death. It acts by its narcotick Sulphur; for we see that all Vegetables which contain Principles of that Kind, as Saffron, &c. produce in the Body the same Effect, in some Degree, as *Opium*.

When a Person has taken too great a Quantity of *Opium*, the first Thing to be done is bleeding as far as the Strength will bear, then giving acid Liquors, as Vinegar, Lemonade, &c. as also smelling to Vinegar and Aromatics; and, if the Extremity of the Case require it, making Scarifications and throwing Vinegar and Salt upon them, and laying on Blisters as well as giving sharp Clysters.

It ought not to be given to Plethorick Persons without first bleeding them, nor at all to Women at the Time of the Menses, &c. nor ever upon a full Stomach, for it then prevents Digestion and commonly is emetick: Custom will bring People to bear great Doses of it, but at first every one must begin with very small ones.]

4. Of Aloes.

Pomet. **A**LOES is a Plant that is bigger or less, according to the Soil it meets with, which has given occasion to some People to say, that it rises in some Places as high as some of our largest Trees; which is not altogether false; for there are found in *Spain*, especially in the Mountains of *Sierra Morena*, *Aloes* Plants of an excessive Height, the Leaves whereof are so thick, hard and sharp, that some of them would saw a Man asunder. In the Middle of the Leaves rises a Stalk, according to the Figure, that bears a white Seed, extremely light, and roundish.

I shall not employ my Time to relate what a great many Authors have said concerning the *Aloes* Plant, that it flowers not of a hundred Years; and that when the Flowers blow they make a great Noise, which is altogether false, since we have seen the *Aloes* Plant blow several Times in the Royal Garden at *Paris*; and when the Flower opens it is done without any Noise, or at least so small that it is difficult to discover; and it is easy for me to prove what I advance from the *Hortus Regius Parisiensis*, Page the 8th, where, in the Article of *Aloes*, are these Words: *Floruit in Horto Regio, Anno 1663, & 1664, quod ignotum hactenus fuerat Lutetiae, idque nullo strepitu, nulla subitanea Floris eruptione, ut perperam multi fabulantur.* It flower'd in the Royal

Garden in the Year 1663 and 1664, which was never known before in *Paris*, and that without any Noise or sudden Eruption, as several had imagin'd. But I shall only say, that abundance of People were surpriz'd that I should affirm that *Aloes* produced its Fruit in Clusters, as represented in the Cut; but what I advance answers to a Piece given me by Mr. *Tournefort*, who gather'd the same in *Spain*. He had besides, in his Hands, about half an Ell of Lace four Fingers deep, and of a reddish Colour, which is made of a Silk which they draw from the Leaves of this Plant.

This Description of *Aloes* is entirely different from that made by M. *Furetiere*, who confounds the Tree of the *Aloes* Wood with the Plant which produces the *Aloes*, as I have observ'd in the Chapter of *Aloes* Wood. At present we sell three Sorts of *Aloes*, which differ according as they are finer or coarser; and likewise in regard to the Places whence they come and where they are made. The finest or purest is the *Succotrine Aloes*, so call'd either because the *Aloes* is a concreted Juice, which the *Latins* call *Succus Concretus*, or because the best comes from the Island *Succotora*, or *Socotra*, near *Moco* in the *East Indies*. The Inhabitants of that Island draw this Juice from the Root of the Plant; and after it has settled they pour it off by Inclination into a Vessel capable to bear the Fire; and when it is reduced to an Extract they put it in very thin Bladders for Conveniency of Carriage, and in that Condition it will keep a long Time, as we find.

Chuse the finest, clearest, smoothest *Aloes*, that when broken is transparent, and being powder'd yields a fine golden yellow Colour, that is of a bitter Taste, without Smell; the smallest, thinnest, lightest Bladders are esteem'd the best. The *Succotrine* Kind is said to be fit for medicinal Use, without any Preparation; but the following Extracts are much more gentle, and properer for all the Intentions of Physick: Dissolve the purest *Aloes* in Juice of Roses or Violets; then digest, strain, and coagulate with a gentle Fire, to the Consistence of an Extract, or Pill, which is call'd the *Frankfort*, or Angelick Pill; the last of which Names does not indeed properly belong to it, because the Angelick Pill is a Composition of several Ingredients mix'd together, of which *Aloes* is however the Basis.

Jo. Bauhinus delivers the Method of collecting the three Kinds of *Aloes*, distinguish'd into *Succotrine*, *Hepatick*, and *Caballine*, or *Horse Aloes*, after the following Manner: They take the Herb call'd *Aloes*, being first cut in Pieces, then bruising, they press out the Juice of it, which they put up into a Vessel of a long and round Shape, letting it stand for the Space of twenty-five Days; in the mean while they take Care to clear off the useless Scum, and throw it away; as also the

upper

upper Part of the Juice, until such Time as some Difference appears in its Colour and Consistence. The purer Part of this Juice, being concreted, is call'd *Succotrine Aloes*; the remaining Part of it, being of a little darker Colour, is call'd *Hepatick Aloes*; and from the Dreggs, or Settlings of it, is made that Sort of *Aloes* call'd *Caballine*, or *Horse Aloes*.

At *Paris*, in the Beginning of the Spring, they obtain a most pure *Aloes*, by cutting off the Leaves of the common *Aloes*, and hanging them up by a Thread, and then putting a Dish or Platter under them, a yellowish and exceeding bitter Juice drops out of them into the Dish; which afterwards coagulates into a pure and clean Sort of *Aloes*. This Drug loosens the Belly, destroys Worms, and subdues a preternatural Acid. It likewise removes Putrefaction, or prevents it, being given in Substance from half a Dram to two Scruples. It is also good in Obstructions of the Womb and the Green Sickness; and particularly prevalent in restoring a dejected Appetite.

Aloes is seldom or never prescrib'd in Potion, by Reason of its intense Bitterness; but is often prescrib'd in Pills, being the Basis of all, or most of those purging Pills, to be met with in Authors and Dispensatories. In the City of *Goa*, as *Garcias* relates, they give *Aloes* well bruised, and mix'd with Milk, to those that are afflicted with Ulcers in the Kidneys or Bladder, and void purulent Urine, and by that Means they are cured in a little Time. You must forbear the giving *Aloes*, or any Medicines containing *Aloes*, to those that are subject to the Bleeding Piles, and the overflowing of the Courses, as also to such as are subject to a spitting or vomiting of Blood, and to Women with Child, unless it be first corrected as hereafter taught. But, on the other hand, it may be given properly and successfully enough to Persons subject to Melancholy, the Jaundice, and other Distempers, wherein the first Passages are tainted with vicious Crudities.

Aloes consists of two Parts, or different Substances, whereof the one is saline, the other is sulphureous: The saline Part is dissolv'd by watery Menstruums, such as common Water, distill'd Waters, and the Juices of Plants. The sulphureous Part is dissolv'd by Spirit of Wine, or any other inflammable Liquid. They commonly make use of the Juice of Roses, or Violets, to dissolve it in; but it is far better in fair Water; for by that Means the saline Part is wholly separated from the gross sulphureous Part, which is viscous, and like a Jelly. This gross Substance adhering too closely to the Intestines, is apt to produce a fruitless Desire of going to Stool, call'd a *Tenesmus*, and sometimes bloody Stools; for by its opening the Mouths of the Arteries answering to the hemorrhoidal Veins, the Blood is poured

forth. Wherefore, its Extract, prepar'd with Water, is a great deal better than the crude *Aloes*; and more advantageous and proper than the *Aloes*, *Rosat*, &c.

Some prescribe *Aloes* toasted, by which Means it is depriv'd of its harsh Sulphur. This has been found by Experience to be very helpful in all Sorts of Fluxes of Blood. When *Aloes* is dissolv'd in the Juices or Decoctions of Plants, it is call'd the Infuccation of *Aloes*, or *Aloes* insuccated: Wherefore, according to the different Intention of the Physician, it may be dissolv'd in the Juice of Asarabacca, Infusion of Sena, and the Tincture of Scammony or Jalap, that its purging Faculty may be augmented. By a chymical Resolution, *Aloes* affords a large Quantity of Oil, and but a very inconsiderable Quantity of urinous Spirit.

5. Of Hepatick Aloes.

Within these few Years last past we have brought from the *American Pomet*. Islands a thick Juice, which the *French* make from the Root and Leaves of the *West-India Aloes*, describ'd in the Cut with its Flower and Fruit. This *Aloes* is brought us in Gourds or Calabashes of different Sizes and Weight; that is to say, from two Pounds to a hundred, and more, which is very extraordinary; but I can affirm the Truth of it, as I have by me a Shell of it which weighs an hundred and two Pounds Weight.

Chuse such as is of a Liver Colour, from whence it takes the Name of *Hepatick*, from the Word *Hepar*, which signifies Liver, and the least stinking that may be. There are two Sorts of it, the *Hepatick*, properly so call'd, and the *Caballine*; the *Hepatick* is the finer Sort of the two, and is given both to Men and Horses; it is of a lighter Liver Colour, fine and clear, and not very fetid in Smell. The *Caballine* is the coarser Sort, black, hard to be broken, and often adulterated. This is *Horse Aloes*, and ought not to be given to Men: The common *Hepatick Aloes*, sold in Shops, is scarcely any Thing else but the *Caballine*, of a strong fetid Smell, and very coarse: The *Hepatick*, *Barbadoes*, or *West-India Aloes*, is also of a fetid Smell, but much finer than the *Caballine*, and is brought over in Gourds, Pots, and Casks; that in Gourds is the best, and the finest; that in Pots indifferent, but not so good as the other; that in Casks is moist, and the worst of all.

Aloe vel Aloes, is the thick or concreted Juice of a Plant, call'd by the *Lemery*. same Name, that grows of several Sizes, according to the Soil and Climate; they are to be met with in *Spain*, and many other hot Countries; the Leaves proceed from a Root that is long, large, very thick, fleshy, firm, indented, sharp on the Edges, fat and full of Juice: There rises from the Middle of a large Stalk, which carries



White Poppy.

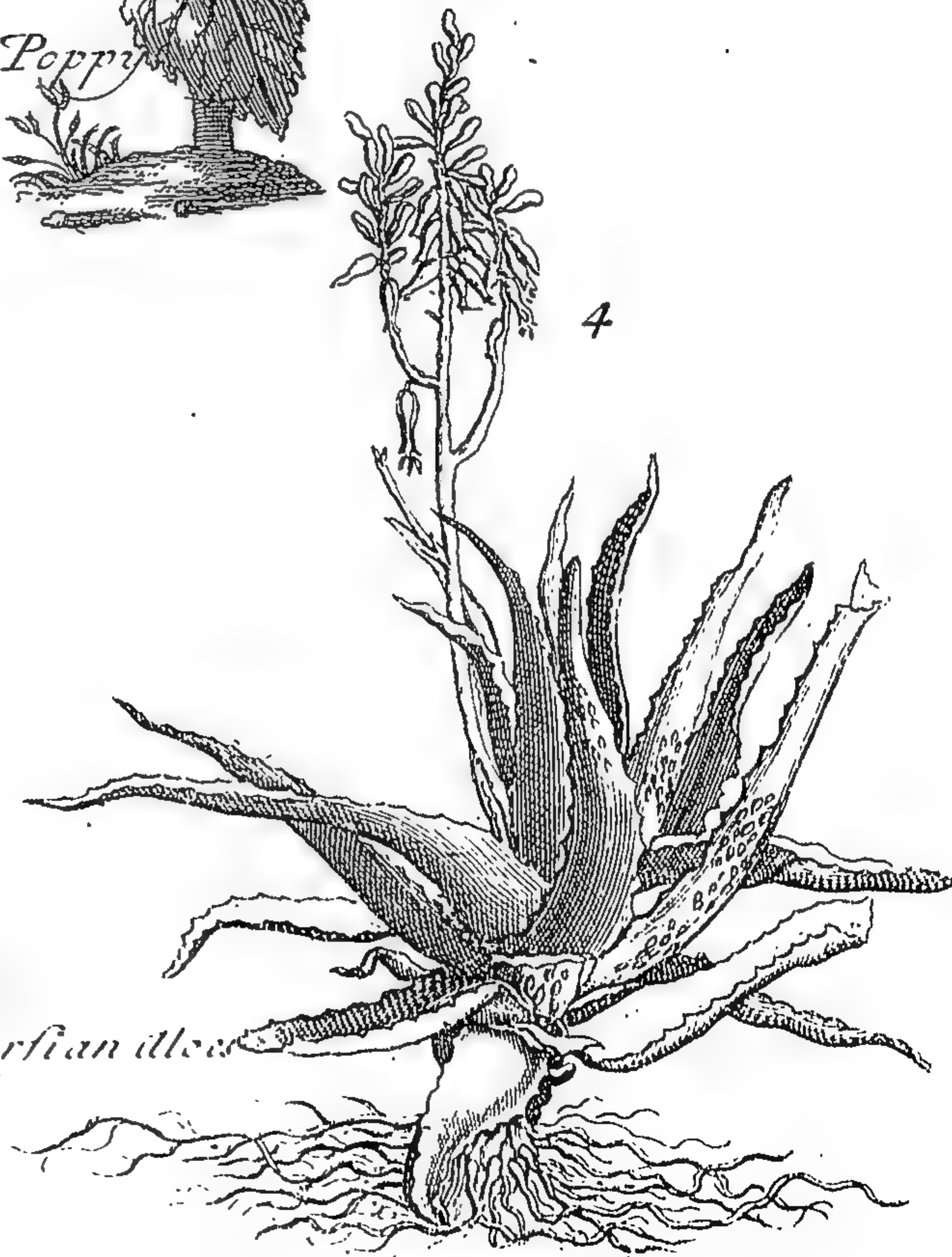
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Black Poppy.



Glaucium



Persian Aloe

4

ries on its Top white Flowers, deeply slash'd in or divided into six Parts, which are succeeded by oblong, or as it were, cylindrical Fruit, divided each lengthways into three Partitions full of flat Seeds: The Root is of the Shape of a Stake fix'd in the Ground; all the Plant is extremely bitter, and grows in the Southern Climates, as *Egypt*, *Arabia*, *Spain*, and *America*.

Some Naturalists say, that the *Aloes* Plant flowers not but from one hundred Years to another; that when the Flower opens, or blows, it makes a Report like a Gun; and that the Stalk rises up all at once, and grows prodigiously in a little Time: But this is not confirm'd from the Royal Garden at *Paris*; and on the contrary, the *Aloes* has been seen there to flower without any such Prodigy. The *Aloes* is divided into three Kinds; the *Succotrine*, the *Hepatick*, and the *Caballine*: All the Kinds are purging, and the Body is made of a watry Part, and a resinous; in the watry Part the purging Faculty resides. The resinous is of no Use for this Purpose, but rather of ill consequence, being that which induces Gripings. For this Reason it is always wash'd or cleansed before it is used, and then it may be taken with Ease and Safety. This is to be observ'd, that *Aloes* is not to be given too often, nor in too great a Quantity, lest it fret the Stomach and Bowels; nor to such as are troubled with a Flux of the Womb or Belly, or such as have a Bloody Flux, or Women with Child; nor to such as are hectic, or have burning Fevers, or are of a hot and dry Habit of Body, or who are emaciated, lean, and wasted away; nor to Children of thin, lean, hot and dry Constitutions; especially in hot Weather, when the Air is in an extreme dry Temperature.

[The three Kinds of *Aloes* are the Juices of three different Plants; the *Socotrine*, of the *Aloe Succotrina angustifolia Spinosa flore purpureo*, B. Prodr. 2. 12. *Aloe Americana serrata floribus Coccineis*, Par. Bat. Pr. 306.

This grows in *Socotora*, or *Zocotra*, an Island in the Streights of *Babelmandel*.

The *Hepatick*, or *Barbadoes Aloes*, of the *Aloe*, C. B. Pin. 286. J. B. 3. 696. R. Hist. 2. 1195. *Aloe Dioscoridis*, Column. Eph. 1. 40. *Aloe Dioscoridis, et aliorum*, Sl. Cat. Jam. 15.

And the *Caballine* of the *Aloe Guineensis Caballina vulgari similis sed tota maculata*. Com. Pr. Bot. 40.

The *Socotrine* is the only Kind now order'd to be used in Medicine, except for Horses.]

6. Of Hypocistis.

Pomet. THE *Hypocistis* is a concreted Juice made from a Kind of Sucker that arises from the Root of an Under-

Shrub, call'd *Cistus*, very common in *Provence* and *Languedoc*, from whence we bring the *Hypocistis* we sell. Mr. *Charas*, and after him Mr. *Meuve*, have well describ'd the Shape and Colour of this young Shoot, as well as the Shrub that bears it; the Figure of which I thought sufficient to give you, as engrav'd from the Original.

Chuse *Hypocistis* that is boil'd to a good Consistence, like Juice of Liquorice; that is to say, firm, of a shining black, the least burnt, the most astringent to the Taste that may be, and that which is true. I name the true *Hypocistis*, because Mr. *Meuve* says, that the Apothecaries, who would deceive the World, generally use the Juice of the Root of Goats-beard dry'd in the Sun. But I can never believe this for several Reasons; first, because the *Hypocistis* is an Extract that is sold very cheap; as well because the Buds are very common in *Provence*, as by reason they yield a great deal of Juice, and the Extract of the Root of Goats-beard is worth more than the true *Hypocistis*: And besides, Mr. *Charas*, from whom Mr. *Meuve* principally copies, makes no mention at all of it.

This Juice is cold and dry, therefore it thickens and binds strongly, and is used chiefly to stop all Fluxes of the Belly, Womb, and Stomach; it stops vomiting and spitting of Blood, from Bruises. *Acacia* is often used instead of it, but is not so effectual and good. This Juice is depurated by dissolving it in Water or Wine, and inspissating; it is made up into Rolls or Troches to stop spitting of Blood, and Fluxes, Catarrhs, &c. The Tincture checks a Gonorrhoea, and the Whites; heals a Corrosion of the Bowels, occasion'd by the Sharpness of Humours: A Lohoch made of it, with Wine and Honey, is chiefly used against Ulcers in the Lungs, Stomach, and Bowels.

Hypocistis, is a Kind of *Orobanche*, or a Sort of Sprig or Shoot that grows, *Lemery*. in Spring-time, upon the Foot or Root of the *Cistus*, which is very common in hot Countries, as *Provence*, *Languedoc*, &c. and bears Leaves that are almost round, hairy, rough, whitish, and the Flowers purple. The Shoot grows about half a Foot high, of an Inch or two's Thickness, and sometimes more, being round, and much larger at Top than at the Bottom; brittle, and of a yellow Colour, full of Juice, having certain Rings or Knots from one Place to the other, like Water-Lilly Root. They cut this little Plant towards *May*, when they bruise and draw from it, by Expression, an acid Juice, which they evaporate over the Fire, to the Consistence of an Extract, that is hard and black as the Juice of Liquorice, but in Shape of little Cakes, for the Convenience of Carriage. This is call'd, according to the Plant, *Hypocistis*. It ought to be chosen,

chosen, fresh, heavy, black, without the Smell of burning, of an acrid astringent Taste : It contains a great deal of acid essential Salt, intimately mix'd with Earth and Oil. It is proper to stop Looseness and Vomiting, and to put into any strengthening and binding Plaisters.

[The *Hypocistis* Juice is the inspissated Juice of the *Hypocistis*, Park. J. B. &c. *Hypocistis purpurea flore candicante et flore luteo*, Tourn. Coroll. *Orobanche quæ Hypocistis dicitur*, Rai Hist. *Orobanche minor a Cisto*, Hist. Ox. It is an Ingredient in many Compositions, but never is heard of in extemporaneous Prescription, and is generally found basely adulterated in the Shops.]

7. Of the true Acacia.

Pomet. THE true *Acacia* is an inspissated Juice brought to us in Lumps of five or six Ounces Weight, wrapt in very thin Bladders : It is got by Expression from the Seeds of a thorny *Egyptian* Shrub of the same Name ; and being dry'd in the Shade, is blackish, if the Seed it was expressed from was ripe ; if not, it is reddish or yellowish, and some express it from the Leaves and Fruit together.

Chuse that which is boil'd to a good Body, of a dun Colour, that is to say, of such a brown as is inclinable to red ; it ought to be smooth, shining, of an astringent Taste, but not unpleasant : It is very little used, and therefore not much bought up by the Druggist and Apothecary, who, if it is call'd for, generally use the *German Acacia*, which is made of the Juice of Sloes, boil'd to the Consistence of a solid Extract, then put in Bladders, as the *Egyptian* Sort, which it is like in the Form, but not in the Colour ; for the true is of a brownish or dark red, as aforesaid ; and the *German Acacia* black as the finest Juice of Liquorice.

Acacia vera seu Egyptiaca, the true *Lemery*. *Acacia*, or that of *Egypt*, is a thick Juice, very heavy, of a brown, reddish Colour, which is brought in the Shape of Balls, that weigh about five or six Ounces, ty'd up in very thin Bladders : They say it is made from a Fruit almost like Lupins, contain'd in Pods which are borne upon thorny Trees in *Egypt*, whose Branches are pretty much extended, bearing fine white Flowers. Chuse that which is neat, solid, weighty, of a blackish Colour, something reddish, shining, easy to break, and of a styptick Taste. It affords a good deal of Oil and essential Salt ; is astringent, incrassates or thickens the Humours, strengthens and resists Poison, stops Hemorrhages and Fluxes, and is good for Indispositions of the Eyes. As the true *Acacia* is sometimes scarce, the Shops use or sell that which is made of the Juice of Sloes, or the Fruit of the Black Thorn,

brought over in round Balls, wrapped up in Bladders, of a very sharp, styptick, or astringent Taste. It is used in *Rob* or *Quiddony*, made with Damask Rose-Water, and double refin'd Sugar. The true *Acacia* is made by Expression out of the Fruit, and that either ripe or unripe. From the ripe Fruit there is a black Juice, so call'd ; from the unripe Fruit a red or yellow Juice, the Colour not so black, but more inclining to red, and of a sweet Scent : And this is the true *Acacia* of *Dioscorides* and the Antients, which is to be used in making of *Venice-Treacle*.

[The Tree which produces the true *Acacia*, is the *Acacia vera*, R. Hist. 1. 966. *Acacia vera sive spina Egyptiaca*, Park. 1547. *Acacia Dioscoridis*, Ger. Em. 1590.

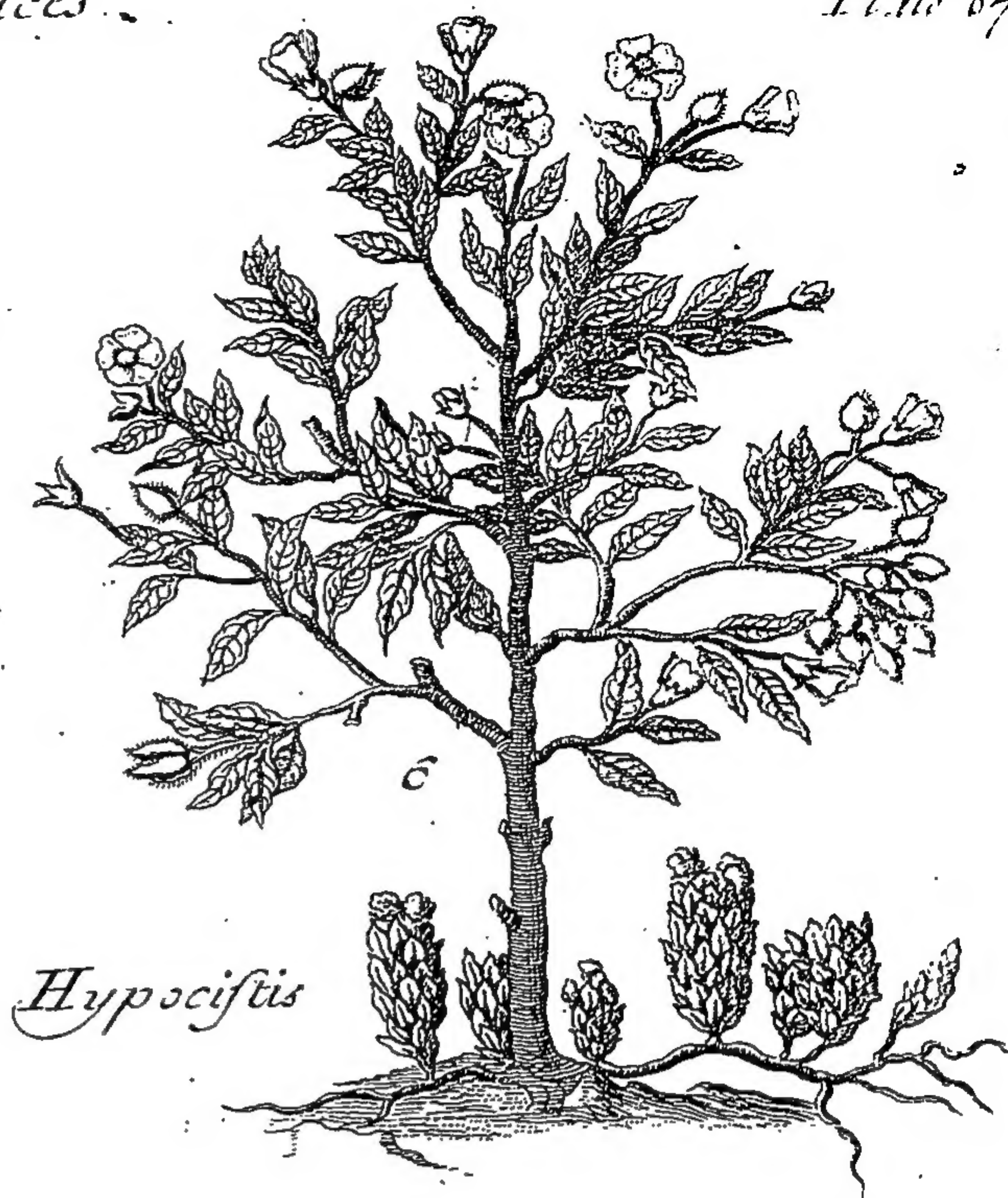
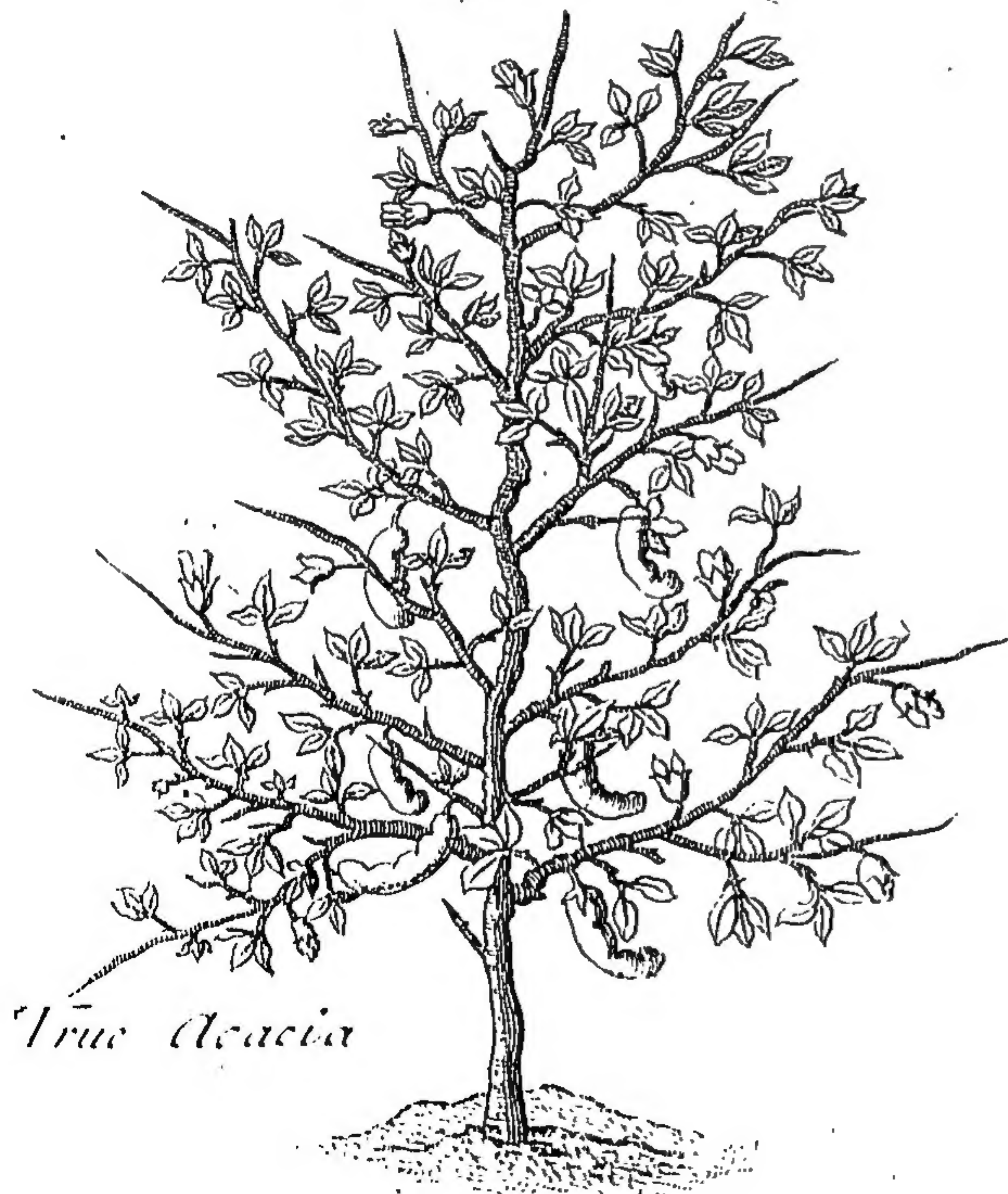
The Juice is, or ought to be expressed from the Fruit before it is ripe, and to be reddish or yellowish within, and black without ; it grows hard and black throughout with Age. It is a good Medicine, but seldom met with genuine : There are a Multitude of different Adulterations of it ; and besides, the Sloe Juice, or *German Acacia*, as it is call'd, is generally used in its Place.]

8. Of Roucou or Rocoe.

THE *Roucou*, which the *Indians* call *Achiottl*, or *Urucu* ; the *Dutch*, *Or-Pomet*. *leane* ; and we, *Roucou* ; is a *Fecula* which the Inhabitants of the *Leward-Islands*, and *St. Domingo*, make from a little red Grain or Seed, which is found in a Husk or Shell, whose Figure is here represented, mark'd A, which was engrav'd after the Original, which I have in my Hands.

The Shrub which bears the *Roucou*, produces, according to Father *du Tertre*, from the Root several Shoots that grow into Shrubs, and divide themselves into several little Branches : The Leaves are very like those of *Lilac*, and it bears twice a Year several Clusters of Flowers, that are white, mix'd with red, and in Shape like those of black Hellebore ; the Flowers are full of a vast many little *Stamina*, or yellow Threads tipped with red : At the Fall of the Flowers come dark-colour'd Seed-Vessels, all hair'd, or bristled with fine little brown Points, which do not prick at all. When they are ripe, there are in the Middle two double Seeds or Kernels, entirely surrounded with a Kind of Vermilion, or liquid red Dye, which the Natives call *Roucou* : 'Tis with this they paint themselves when they travel abroad ; but before they use it, it is mix'd with certain Oils which they draw from some Seeds.

The *Europeans* do it with Linseed Oil ; they beat it in a Mortar with this Oil, and after they have reduc'd it to a Mass, they send it into *France*, &c. where they use it to colour Wax, when it is too pale, and likewise to give a Colour



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to Chocolate. There are those likewise who beat it in a Mortar without Oil, and make it into a Mass, or into Cakes; which being dissolv'd in Urine, makes a red Tincture, which stains as well as the best Dye in *Europe*, and is a very good Commodity. This is the Tree which *Scaliger* mentions under the Name of *Arbor finium regundorum*.

This Account of *Roucou* is quite different from that of the *Sieur Francis Rousseau*, who wrote me Word it was a Tree of eight or nine Foot high, whose Leaves were like those of the Peach-Tree; after which came Husks or Shells, much like the Chesnut Shell, furnish'd with little Prickles throughout; within which was a little red Seed, which they bruise in a Mortar, or on a Stone, and put into a Vessel of Water. In short, that the *Roucou* was made in those Islands after the same Manner as we make Starch, and not according as Mr. *Meuve* has describ'd; and that after it was made into Cakes, and dry'd, it was sent hither.

This last Relation is much juster than the first; for as much as the Cods or Husks I have, exactly agree with his Description. Besides, it is easy to see by the *Roucou* which we sell, especially when it is good, that it was never steep'd in Oil, in that the good Smell of the true *Roucou* makes it evident that it has no Mixture. Again, we ought to undeceive those who believe that the *Achiotl* is made as the *Sieur Blegny* describes it, when he says, that it is a thicken'd Juice which is drawn from the Fruit of the *Achiotl*, which is a Fruit-Tree of *America*. That this Fruit is a red Seed or Grain, which is found in great Plenty, in large round Husks or Shells: That when they take this Seed from the Husks, they stamp or beat it in a Mortar, and then press out the Juice, which they set afterwards in a hot Place to evaporate the Moisture; and when it grows thick, almost like Paste, they work it into several Forms or Shapes; which being thoroughly dry, are properly what is call'd *Achiotl*: Upon the whole it is certain, that the *Roucou* is made like Starch, and that it is impossible to draw a Juice from it, since the Matter out of which it is made is a reddish downy Substance, which is found sticking to the Seed that is in the Husks, which they cannot separate but by Means of Water, in the same Manner as our Starch-makers separate the Meal from the Bran to make Starch of; and is not a Juice express'd, or drawn from the Grain, as that Author would have.

Chuse such *Roucou* as is of an Orrice or Violet Smell, the dryest and highest colour'd you can get: *Roucou*, of this Kind, is that which ought to be call'd *Achiotl*; but the chief Part of that we sell is moist, foul, mouldy, &c. so that in a Word it is unfit to be given inwardly, mix'd

in Chocolate, or otherwise. It is astringent and good in Hemorrhages; it is also much used by the Dyers. There was brought formerly from these Islands, and also from *Holland*, a *Roucou* in little Cakes, of the Shape of a Crown-piece, which was endow'd with a great many Excellencies, and very good for internal Uses: What we have brought at this Time is in great square Cakes, like *Marseilles* Soap, or in round Balls, and is sometimes so base and stinking, that it is almost impossible to use it.

The savage *Americans* cultivate the Shrubs that bear the *Roucou* with great Industry, because of the many Uses they make of them: Such as, First, to adorn their Gardens and the Fronts of their Houses. Secondly, being a hard dry Wood, it serves for Fuel. Thirdly, the Bark serves them for Cordage, and to make Linen. Fourthly, they put the Leaves and Root into their Sauces, to give 'em a Relish, and to tinge 'em of a Saffron Colour. Fifthly, from the Seed they make the *Roucou*, as well to paint their Bodies when work'd in Oil, especially on great Days of Rejoicing, as to exchange for other Commodities with Advantage. This gives me an Opportunity to speak of an Extract of Buck-thorn Berries, which is made by pressing out the Juice, and mixing it with White Wine, and a little Alum, and evaporating all to a due Consistency, which is a fine Green for Painters in Miniature. There are excellent Extracts made likewise from black Hellebore, Pæony, Tithymal, and wild Cucumbers, call'd *Elaterium*. The Syrup made from these Buck-thorn Berries, call'd *Syrupus Rhamni Catharticus*, or *de Spina Cervina*, is an extraordinary Hydragogue, or Purge for watry Humours, and one of the best strong Purges that is, and therefore good in the King's-Evil, Rheumatism, and Dropsies. This Syrup ought to be made of the ripe Berries, and gather'd about the End of *September*, or Beginning of *October*; but if they are not ripe, they are not so proper to purge withal. There are some solid extracted Juices besides, that are made portable, as the Juice of Liquorice, and some others, too common to require a Description.

Roucou, call'd by the *Indians Achiotl*, or *Urucu*, is a dry Paste, made from a *Lemery*. little red Seed, which is found in a longish Husk or Cod, that has the Shape of the Myrobalans, but prickly, almost like those of Chesnuts. Authors are not agreed about the Kind of Tree or Shrub that bears this Fruit; some saying that the Leaves are like those of *Lilac*, and others, Peach Leaves.

To prepare *Roucou* they bruise or pound the red Seed, then they dilute it with Water, and pass it through Strainers, to separate the Bran, or grosser Parts; afterwards they dry this into a sort of Flour

Flour or Starch. Chuse the dryest, of a Violet Colour. The Dyers use it chiefly, though it is sometimes made Use of in Chocolate. If it be pure, it strengthens the Stomach, stops Looseness, helps Digestion, promotes Respiration, and provokes to Urine. The *Rhamnus Catharticus*, or purging Thorn, [*spoken of by Pomet*] is a Shrub that grows sometimes of the Height of a Tree, whose Trunk is of a moderate Size, cover'd with a Bark like the Cherry-Tree, whose Wood is yellow; the Branches furnished with some Thorns that are sharp; the Leave pretty broad and green, much less than those of the Apple-Tree, surrounded on their Edges with very fine small Teeth; the Flowers are little, and of a Grass green, succeeded with soft Berries, as big as the Juniper, green at first, but that grow blackish as they ripen, shining, and full of a dark colour'd Juice, tending to green, that is bitter, and has within some Seeds join'd together.

This Shrub grows in Hedges, Woods, and other uncultivated Places. The Fruit is gather'd when ripe, about the Midst of Autumn, and is much in use amongst the Painters, Dyers, &c. It yields Abundance of essential Salt, Oil, and Flegm, besides an acid Liquor, but a very full Portion of Earth. From these Berries, being press'd, a purging Syrup is commonly prepar'd in the Shops, with some of the warm Aromaticks, which purges pretty briskly, and gripes in its working; and therefore ought to be given a little

before Victuals, so that its sharper Force, especially in Children and young People, may be a little ty'd up and blunted by the Aliment, or Food that is taken. This Syrup is prescrib'd from one Ounce to two, being brisk in discharging watry Humours, and therefore very properly given in the Gout, Cachexy, Dropsy, and Rheumatism. The Powder of the Berries dry'd may be given from one Dram to two Drams; but it will be a great deal better to boil them in Broth.

[The *Roucou*, *Achiott*, or *Arnotto*, is made from the Fruit of the *Orleana*, seu *Orellana folliculis Lappaceis*, *Orleana* seu *Orellana*, seu *Uruca*, Par. Bat. Herm. Cat. 464. Prod. 357. *Arbor Mexicana fructu Castaneæ Coccifera*, Rai Hist. 2. 1771. *Mitella Americana maxima Tinctoria*, Tourn. Inst. 242. Boer. Ind. 2081.

It was once much used in Medicine, and made an Ingredient in Chocolate; but at present it is hardly ever heard of on any Occasion in the Shops.

The Buck-thorn Berries are the Fruit of the *Rhamnus Catharticus vulgaris*, Jons. Dend. 236. *Rhamnus Solutius*, Ger. Em. 1337. The Syrup made from them is a rough Purge of much Esteem among the common People, but not often prescribed alone by Physicians. The Liquorice Juice has already been spoken of in its proper Place.]

End of the VEGETABLES.

8

of Roucou Husk or shell

The Negro's making
Roucou

Roucou

